

IMPROVING CUSTOMER SERVICE FOR THE COPY-
RIGHT COMMUNITY: ENSURING THE COPY-
RIGHT OFFICE AND THE LIBRARY OF CON-
GRESS ARE ABLE TO MEET THE DEMANDS
OF THE DIGITAL AGE

HEARING
BEFORE THE
COMMITTEE ON HOUSE
ADMINISTRATION
HOUSE OF REPRESENTATIVES
ONE HUNDRED FOURTEENTH CONGRESS
FIRST SESSION

HELD IN WASHINGTON, DC, DECEMBER 2, 2015

Printed for the use of the Committee on House Administration



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IMPROVING CUSTOMER SERVICE FOR THE COPYRIGHT COMMUNITY: ENSURING THE COPYRIGHT OFFICE AND THE LIBRARY OF CONGRESS ARE ABLE TO MEET THE DE- MANDS OF THE DIGITAL AGE

WEDNESDAY, DECEMBER 2, 2015

HOUSE OF REPRESENTATIVES,
COMMITTEE ON HOUSE ADMINISTRATION,
Washington, DC.

The Committee met, pursuant to call, at 11:11 a.m., in room 1310, Longworth House Office Building, Hon. Candice S. Miller (chairman of the Committee) presiding.

Present: Representatives Miller, Harper, Nugent, Davis, Comstock, Walker, Brady, Lofgren, and Vargas.

Staff Present: Sean Moran, Staff Director; John Clocker, Deputy Staff Director; Bob Sensenbrenner, Deputy General Counsel; John L. Dickhaus, Legislative Clerk; Erin McCracken, Communications Director; Reynold Schweickhardt, Director of Technology Policy; Brad D. Walvort, Professional Staff Member; Edward J. Puccerella, Professional Staff Member; Jamie Fleet, Minority Staff Director; Matt Pinkus, Minority Senior Policy Advisor; Khalil Abboud, Minority Deputy Staff Director/Director of Legislative Operations; Mike Harrison, Minority Chief Counsel; and Eddie Flaherty, Minority Chief Clerk.

The CHAIRMAN. We will move on and now call to order the Committee on House Administration's hearing today, which is going to be on the U.S. Copyright Office.

The hearing record will remain open for 5 legislative days so that members may submit materials that they wish to be included. [The information follows:]

The CHAIRMAN. Today we are holding this hearing to discuss the current IT functionality of the Library of Congress' Copyright Office, areas where the Copyright Office is focused on improving their overall customer service, and how, working together, the leadership within the Library and its Copyright Office are meeting the demands of today's digital age.

We would ask our witnesses to come forward. I see them as we are making our opening remarks.

Wow, you were all back in that room? Okay.

The Copyright Office is one of seven business units within the Library of Congress and operates using both appropriated funds as well as the fees that it collects for copyright registration, recordation, and statutory licensing to manage the disbursement of royalty

payments. Each year the Library's Copyright Office examines approximately a half a million creative works, such as books or songs, movies, software, Internet platforms, and provides a copyright of authorship to those individual products.

The Library is charged to administer our Nation's system of copyright law, which it inherited back in 1870. It is really a huge responsibility that promotes innovation and creativity. For writers, singers, producers, IT developers, the copyright process provides clear lines of authorship and ownership of their creative products and protects them as they are distributed throughout the world, a task that is becoming increasingly complex and challenging in today's digital world.

Today, of course, we are streaming and we are downloading content. We are using social media and multifaceted Internet platforms and software, constantly updated to improve customer interface and security.

The mission of the Copyright Office, which is so critical to innovative growth in the world today, is to provide customers with the assurance that their hard work and investment will be protected. It is to instill the confidence people need to invest in a new idea or a new product. Again, in today's fast-moving digital world that assurance is increasingly difficult to provide.

So the technology and business model needs to evolve for today's customers. It does so with each of the seven units, and the Library's central IT office plays a critical role in supporting the Copyright Office, including providing a technology infrastructure and the support for needed capital improvements. The two entities rely very heavily on one another.

Understanding the scope and significance of this operation, it is very concerning to read the GAO report that was released just earlier this year outlining the Library's longstanding weaknesses across several IT areas, including Copyright. According to the reports, operational and organizational challenges within the Library and its Copyright Office have resulted in a serious backlog with the registration and recordation system, causing extensive wait times, some as long as 18 months, as has been noted.

In addition to outdated technologies and insufficient IT capabilities, especially with the recordation process, the GAO also identified deficiencies related to data integrity and security. It also highlighted the lack of a Library-wide strategic plan to address all of these problems.

In its report, the GAO included 31 recommendations for the Library to address these weaknesses. Perhaps most importantly, they also highly recommended that the Library hire a Chief Information Officer. So our Committee, of course, will be looking for an update on where the Library is with these recommendations and as well what caused a recent IT service outage that affected a number of Library-supported systems, including the Copyright Office. In fact, for more than a week, an entire week in September, the online copyright registration system, which is referred to as eCO, was down for a week because of the outage.

So the Committee obviously wants to hear from the Library regarding the current IT system and how those operations have been impacting its Copyright Office in the copyright community. The

Committee is also interested to hear how overall customer service experiences will be improved.

The Committee will also be hearing from the Register of the Copyright Office today and how the Copyright Office's own management structure fits within the broader Library system, if the Copyright Office is receiving the required support from the Library, and how these two entities, again, are working together to correct the current issues that they face today.

Finally, we will be hearing from the GAO about the problems identified in the March report and the Library's progress implementing its recommendations.

I would just note that I know there have been a number of people who have been advocating for some period of time that the Copyright Office actually be independent from the Library, but that is not the purpose of today's hearing. That is not what we are talking about today. Today we want to hear how Library management, both the Acting Librarian and the Register of Copyrights, are working together diligently to fix the immediate problems before them to improve their operations and customer support.

I want to thank our witnesses for their appearance, and I will more formally introduce them in just a moment. But now I would like to recognize my colleague and the ranking member of the Committee, Mr. Brady, for purposes of his opening statement.

Mr. BRADY. Thank you. And I want to thank the Chairman for calling this important hearing today. And I would like to congratulate David Mao on his new responsibilities as Acting Librarian of Congress.

Madam Chairman, I have a longer statement for the record, but would like to make a few comments before we hear from our witnesses.

I want to be clear that I support keeping the Copyright Office in the Library of Congress, but I also want to be clear that the Library of Congress needs to support the Copyright Office. This starts with solid operations support, including a laser-like focus on informational technology, and I hope to hear today how the Library of Congress offices are working together to provide creators and inventors good customer service.

I am pleased with the work that David and his team at the Library have done, but that is just a start, and I look forward to hearing about how we could continue to make important progress in this area.

I thank the Chairman again, and I yield back the balance of my time.

[The statement of Mr. Brady follows:]

Improving Customer Service for the Copyright Community:

Ensuring the Copyright Office and the Library of Congress are able to meet the demands of the digital age

Statement for the Record

Ranking Member Robert A. Brady

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I want to thank the Chairman for calling this important hearing today and I'd like to congratulate David Mao on his new responsibilities as Acting Librarian of Congress.

I want to be clear that I support keeping the Copyright Office in the Library of Congress. But I also want to be clear that the Library needs to support the Copyright Office. This starts with solid operational support, including a laser like focus on information technology. I hope to hear today how the Library and the Copyright Office are working together to provide creators and inventors good customer service. I am pleased with the work that David and his team at the Library have done, but that is just a start, and I look forward to hearing about how we continue to make important progress in this area.

The Copyright Office is a gift inside a national treasure, our national library. And it is required to play many roles. It administers the complex copyright laws of the country but also serves as an adviser to Congress on copyright issues and represents the United States abroad in matters affecting our creative economy and intellectual property. Estimates indicate that core copyright industries contribute an astounding \$1 trillion dollars to our gross domestic product. So not only is the Copyright Office an important part of the Library of Congress, it is key component of protecting our economy as well.

The Library of Congress has been plagued with information technology challenges for years. While Acting Librarian Mao has made a substantial down payment on remedying these problems, work remains.

The Senate Appropriations Committee instructed the Government Accountability Office (GAO) to assess the Copyright Office's IT needs and whether or not their budget request aligned with other Library of Congress goals, served the best interest of Copyright stakeholders, and overall was good value for the taxpayer. In March 2015, we got the results.

GAO determined the Copyright Office was found to not have sufficiently justified their budget request of \$ 7 million. GAO also observed that the Copyright Office failed to align their strategic information technology plan with the wider Library of Congress' strategic plan.

That is a basic failure of leadership at the Copyright Office to work with its internal stakeholders.

It is my expectation that the Librarian and the Copyright Office work together, with the support of this principal oversight to fix these problems.

We value the Library of Congress. But the Library also needs to be prepared to harness advances in technology that have given way to greater avenues of content distribution and has positioned the Copyright Office in the middle of this growing part of our economy.

I understand, and appreciate, the transition happening at our Library. After three decades of Dr. Billington's leadership, I know that this change might be unsettling for the Library community. But change is not a reason to do nothing. We must continue to make investments to meet the immediate and long term needs, of this crucial function of the Library. I know that David understands that, and GAO has given us a good road map to make those investments. I look forward to hearing from the witnesses on the next steps. Thank you, Madame Chairman.

The CHAIRMAN. I thank the gentleman.

I would also like to congratulate David Mao as I formally introduce him. He became the Acting Librarian on October 1, 2015.

So you are just getting your feet wet, so to say, but not really because he had previously served as Deputy Librarian of Congress from January 12 of 2015, and before that he was the 23rd Law Librarian of the Congress, serving in that position since January of 2012. He also has experience in the Library working as the section head for the Congressional Research Service and also became the first Deputy Law Librarian of Congress. He also has experience in the private sector, working in private practice for a number of years.

He graduated from George Washington University, obtained his law degree from Georgetown University Law Center, and also has a master's degree in Library Science from the Catholic University of America.

So we welcome you, sir.

Maria Pallante was appointed as the Register of Copyrights on June 1, 2011, after serving 5 months as the Acting Register of the Copyright Office. She also served as the Copyright Office—served it as Deputy General Counsel from 2007 to 2008 and as an Associate Register and Director of Policy and International Affairs from 2008 to 2010.

Ms. Pallante also has extensive experience working in the area of copyright. Before coming to this office, she also worked as the assistant director of the Authors Guild, Inc., and then as executive director of the National Writers Union, focusing on copyright policy, transactions, litigation, and freedom of expression issues.

She is a 1990 graduate of the George Washington University Law School. She earned her bachelor's degree from Misericordia—I hope I am pronouncing that correctly—University in Pennsylvania.

Finally, Joel Willemssen is the Managing Director of Information Technology Issues at the U.S. Government Accountability Office. In this position he has overall responsibility for the GAO's evaluations of information technology across the Federal Government.

Since joining the GAO in 1979, he has led numerous reviews of information technology systems and management at a wide array of Federal agencies. He frequently testifies on information technology issues before congressional committees, appearing as a GAO witness on more than 100 occasions.

So you are pretty old hat at this, I would say. We appreciate you being here.

He received his bachelor and master's degree in business administration from the University of Iowa.

So, again, we thank you all for joining us. At this time the chair would recognize the Librarian of Congress, David Mao.

STATEMENTS OF DAVID S. MAO, ACTING LIBRARIAN OF CONGRESS; MARIA A. PALLANTE, REGISTER OF COPYRIGHTS AND DIRECTOR OF THE UNITED STATES COPYRIGHT OFFICE; JOEL C. WILLEMSEN, MANAGING DIRECTOR, INFORMATION TECHNOLOGY—U.S. GOVERNMENT ACCOUNTABILITY OFFICE

STATEMENT OF DAVID S. MAO

Mr. MAO. Thank you. Thank you, Chairman Miller, Ranking Member Brady and Members of the Committee. Good morning. I am honored to testify before you today in my ninth week as Acting Librarian of Congress.

Since 1800, the Library has faithfully served Congress. Congress placed the copyright function in the Library in 1870, and since then the Library has contributed to the government's constitutional role to promote the progress of science and useful arts. Copyright deposits have been a resource for generations of Americans and we take seriously our stewardship of this important record of America's heritage.

Factors leading to the 1870 act still exist today; however, improvements are needed. Copyright law needs to be updated. Regulations and processes must keep pace with the demands and expectations of copyright users. The Copyright Office infrastructure needs to be strengthened and modernized.

The Library is a resource of knowledge that furthers intellectual and creative activity and customer service is crucial to our work. I know the Register shares my goal to provide services when, where, and in whatever form modern users expect and demand. We will work together to develop the updated processes and modernized systems to meet the needs of and serve our customers and stakeholders.

The Library has developed more than 250 enterprise systems and applications over the past 50 years. While achieving these successes, though, some areas have not kept pace with the development of technology and general standards and best practices. I assure you that these are a top priority. We have work to do to achieve a high-performing IT environment that supports the entire Library of Congress in serving you and the American people, and we are firmly committed to achieving this objective.

GAO's March report documented IT issues that require immediate attention. As Acting Librarian of Congress, I accept responsibility for implementing strategies to forge a new path forward. These strategies are built on three key pillars: leadership, collaboration, and secure accessibility.

First, GAO identified the lack of a permanent Chief Information Officer. I am happy to report that Mr. Bud Barton joined the Library as permanent CIO this past September. He heads the newly aligned Office of the CIO, specifically focused on providing IT leadership and services. With his guidance, the Library began implementing changes to ensure that IT strategic planning, procurement, and management are considered at the appropriate levels and consistent across the Library. The CIO and I meet weekly to review the status of these changes and issues identified by the GAO and the Library's inspector general.

Second, collaboration is essential to managing IT investments and resources effectively. The Library is committed to providing an IT framework built upon performance, reliability, security, and adaptability, and that allows flexibility for specialized systems best managed at the unit level. The CIO is implementing agreements across the Library for delivery of IT infrastructure and services to support normal business operations. We are in a time of change and recognize that ongoing communication and adjustment is necessary to ensure that collaboration continues successfully.

We share GAO concerns about potential duplication in IT services between the Office of CIO and Library units; however, an enterprise model provides for individual control of critical systems and development processes while also ensuring effective use of resources and preventing investment overlap.

Third, ensuring security while allowing access to data is one of the most significant challenges in handling digital content. Collection items such as paper and books are relatively easy to protect. Digital content, on the other hand, requires secure storage systems, backups for data protection and preservation, and access management policies for users. These challenges are complex, but not insurmountable. The Library has a long history of protecting digital content while simultaneously making it accessible and we are proud of our record of doing so. We will take the steps required to ensure copyright materials remain secure.

The Library is committed to reaching for the highest levels of customer service, and I am confident that our current strategies and planned improvements will allow for us to do so. We are working closely with the GAO audit team and the Library's inspector general to fulfill their recommendations.

Chairman Miller, Ranking Member Brady, and Members of the Committee, thank you for the opportunity to speak with you today. You will find additional detail on recent IT management improvements in my written statement. I look forward to responding to your questions.

[The statement of Mr. Mao follows:]



LIBRARY OF CONGRESS

BIOGRAPHY OF DAVID S. MAO, ACTING LIBRARIAN OF CONGRESS

David S. Mao became Acting Librarian of Congress Oct. 1, 2015, upon the retirement of James H. Billington.

As Acting Librarian, Mao oversees the entire Library and its various service units to ensure the Library's services to Congress and the American people are provided effectively.

Mao previously served as Deputy Librarian of Congress, appointed January 12, 2015. During his time as Deputy, Mao oversaw a strategic re-alignment of Library service units, the appointment of a new Chief Operating Officer and the hiring of a new Chief Information Officer.

Before being named Deputy Librarian, Mao was the 23rd Law Librarian of Congress, serving in that position since January 2012. As Law Librarian, Mao managed the operation and policy administration of the Law Library of Congress, which contains the world's largest collection of legal materials and serves as the leading research center for foreign, comparative, and international law. Mao often described the position as part law librarian to Congress, part steward for the law collections, and part ambassador to the world's legal and library communities.

During his tenure as Law Librarian, Mao expanded the Law Library's collections, particularly in the area of rare law books; oversaw improvements to on-site law collection storage and renovation of the Law Library reading room; initiated new strategies to make U.S. public domain legal materials accessible online; and brought to the Library a 1215 Magna Carta for an historic exhibition on the eve of the Great Charter's 800th anniversary.

Prior to becoming the Law Librarian of Congress, Mao served as the first Deputy Law Librarian of Congress, working as a key member of the Law Library's leadership team. He managed the Law Library's global legal research portfolio, including the Global Legal Research Center and the Global Legal Information Network. Prior to his appointment as Deputy Law Librarian, Mao was a section head at Congressional Research Service (CRS), Library of Congress.

Mao is a graduate of The George Washington University, where he majored in international affairs with a minor in Chinese language and literature. After earning his law degree from the Georgetown University Law Center, Mao was in private practice for several years before returning to graduate school to pursue a master's degree in library science at The Catholic University of America. Before arriving at CRS in 2005, he held positions at the Georgetown University Law Library and within the research library of the international law firm of Covington and Burling LLP. He also was an adjunct professor at the University of Maryland-College Park.

Mao served a three-year term as the treasurer of the American Association of Law Libraries and was a member of its executive board. A member of the American Bar Association, he is admitted to the bar of the District of Columbia.

Statement of David S. Mao
Acting Librarian of Congress
before the
Committee on House Administration
U. S. House of Representatives
December 2, 2015
“Improving Customer Service for the Copyright Community:
Ensuring the Copyright Office and the Library of Congress
are able to meet the demands of the digital age”

Chairman Miller, Ranking Member Brady, and Members of the Committee:

This is my first opportunity to testify before the committee since becoming Acting Librarian nine weeks ago. Dr. James H. Billington appointed me to be Deputy Librarian in January 2015. Before becoming Deputy, I served five years in the Library’s Congressional Research Service and five years in the Law Library, most recently as Law Librarian of Congress.

I look forward to continuing our work together in enhancing the services the Library provides the American people and the Congress. With a new senior executive team and organizational alignment, an updated strategic plan, and increased focus on knowledge-based and data-driven management, the Library is actively addressing current challenges, including those that are the focus of this hearing, and I am optimistic that it is positioned for the future and prepared for its new leadership.

Carved on the front of the Library of Congress Madison building are the following words.

“Knowledge will forever govern ignorance
and a people that mean to be their own governors
must arm themselves with the power that knowledge gives.”

President Madison’s powerful statement undergirds the mission of the Library of Congress: to provide Congress and the American people with a rich, diverse, and enduring source of knowledge that supports Congress in fulfilling its constitutional duties and empowers America in its intellectual, creative, and civic endeavors.

We at the Library want it to be engaging, inspiring, and useful. It is not merely for love of statistics that we say this library that Congress has sustained for more than 215 years is the largest collection of the world’s recorded knowledge ever assembled by one institution; that the Library holds over 160 million items and includes the world’s largest collections of legal materials, films, sound recordings, and maps; that its dedicated staff has provided research

and analysis for the Congress for 100 years through the Congressional Research Service (CRS) and for almost 200 years through the Law Library; and that the Library has worked to “promote the progress of science and useful arts” since becoming the national home of the copyright function in 1870. Copyright is an integral part of the Library’s role as a driver of U.S. creativity and innovation. Motivation to create and share the fruits of the mind is diminished without the protection for intellectual property that copyright provides. For 145 years, the Library has been not only the home of knowledge, but also its staunchest defender. The numbers and history remind us of the scope of this great institution. We are proud of the Library’s role as a knowledge resource and its continuing service of the public good.

We take very seriously our duty as stewards of this precious resource and as servants of current and future generations. We also appreciate the realities of the digital age: the change it has brought to the forms of knowledge that are our stock in trade, to the tools we use to deliver our services, and to the expectations of our users, including the clients of the Copyright Office.

The last ten months at the Library have been eventful. We have looked closely at our strategic goals, organizational structure, and management. In responding to key audit reports, we are incorporating federal and industry best practices into updated information technology (IT) governance and operations. Making progress on these fronts is essential to delivering effective service to the copyright community and others who rely on the Library of Congress. Today I will:

- update you on organizational and IT efforts, and
- discuss modernization of the U.S. Copyright Office.

Library Management, Organization and Strategic Goals

The Library is in an important period of transition, and we have assembled an executive team and completed an agency realignment to ensure strong momentum going forward. This executive team includes Chief of Staff Robert R. Newlen, who has devoted 40 years to the Library of Congress in several offices in CRS and as Assistant Law Librarian. He has a deep understanding of the services the Library offers to the Congress and the American people.

My colleague Maria A. Pallante, Register of Copyrights, has testified before this Committee, and you are of course very familiar with Congressional Research Service Director Mary

Mazanec. The Library also has new executives to lead the units that together manage the national collection.

J. Mark Sweeney became the permanent Associate Librarian for Library Services in February this year. As a former Director of Preservation and Chief of the Main Reading Room, Mr. Sweeney joins me in expressing deep gratitude to the Congress for approving the joint request from the Library and the Architect of the Capitol to lease temporary collections space. The leased space will relieve overcrowded Capitol Hill shelves and provide a critical bridge to Module 5—the next high-density preservation and storage module the Architect is building for the Library at Fort Meade.

Jane D. McAuliffe, previously head of the Library's John W. Kluge Center, is now Director of National and International Outreach (NIO). NIO is a new unit that unites programs that share the national collection with the world—fellowship, intern, and teacher training programs; exhibitions and publishing; services to federal libraries and other customers; library service for the blind and physically handicapped; digital partnerships; the Poet Laureate Consultant in Poetry and the Young Readers Center; and celebrations of literacy and creativity such as the National Book Festival. A scholar and experienced college president, Dr. McAuliffe brings both skill and vision to these exciting programs.

In early October this year, Roberta I. Shaffer—who served as Law Librarian of Congress and Associate Librarian for Library Services until her retirement in 2014—agreed to return temporarily to lead the Law Library while we finalize the national search for a permanent Law Librarian.

In addition to these leaders of programmatic units, the Library has new leadership in critical management positions.

In May, Edward R. Jablonski became the new Chief Operating Officer and supervises management support services that include contracting, finance, facilities and support services, security, emergency preparedness, human resources, and IT. Mr. Jablonski served as the CRS Associate Director for Finance and Administration and, in his prior naval career, as Deputy Commander and Comptroller of the Naval Sea Systems Command, among other posts.

Mary Klutts, well known to you as the Library's Budget Officer, in January was named the Chief Financial Officer and brings to the position of CFO a thorough grasp of Library programs and finances, and understanding of the support the Library provides to fellow legislative branch agencies through cross-servicing arrangements.

I am also happy to report that in September Bernard A. Barton, Jr. became the Library's new permanent Chief Information Officer (CIO). Formerly the CIO and Deputy Administrator of the Department of Defense Technical Information Center (DTIC), Mr. Barton brings many years of information technology experience to the Library. Most recently, he provided executive direction in planning, implementing, and evaluating long-range IT activities at DTIC and managed the day-to-day activities of the organization.

I want to acknowledge and thank Elizabeth R. Scheffler for stepping forward earlier this year to provide IT direction as the Library conducted a national search for a CIO. I thank my colleague Register Pallante for suggesting Ms. Scheffler and detailing her to the Library's central IT operation for eight months. Ms. Scheffler, Director of Public Records and Repositories for the U.S. Copyright Office, served from January through September as Interim Library CIO. During her tenure, she produced an interim IT strategic plan. The plan focuses on updating the Library's IT strategic governance process, finalizing the enterprise architecture, incorporating industry and federal best practices into operations and planning, and addressing infrastructure projects that will improve IT services Library-wide. With the interim plan, Mr. Barton has a solid foundation for development of a complete IT strategy that will support the Library's institutional strategic plan for the next five years.

To revamp the Library's organization, we began in June to realign programs and operations. We created the NIO service unit to elevate outreach, educational, fee-for-service, and national service activities. We consolidated the institution-wide management support structure under a Chief Operating Officer in the Office of the Librarian.

Most importantly, the realignment separated IT infrastructure, development, and support functions from digital collections and digital outreach functions. These distinct management support and programmatic functions had been combined in the former Office of Strategic Initiatives. Now, digital collections—both born-digital materials and those digitized from analog—are managed alongside traditional materials as part of the national collection. Teaching with Primary Sources and other digital outreach efforts are managed in NIO. Without these programmatic responsibilities, the focus of the new Office of the Chief Information Officer (OCIO) is squarely on IT planning, management, and service delivery, including web development and repository development.

On September 30, the Library published its 2016-2020 institutional strategic plan. The plan is a clear statement of the Library's mission, values, and functions. It provides a framework for our operations as we position ourselves for the future and prepare for new leadership. The plan identifies strategies and actions to achieve specific outcomes. Two strategies from the plan are particularly relevant for today's hearing.

- Deploying a dynamic, state-of-the-industry IT infrastructure across all parts of the Library that follows best practices and standards.

Accomplishing this strategy includes harmonizing IT systems, ensuring security and continuity of operations; developing policies that allow location-independent access while protecting networks, data, and intellectual property; and providing technology-enabled access for the blind and physically handicapped and other communities with specialized access needs. Fundamental to this strategy is employing an IT governance structure that ensures accountability, efficiency and coordination in managing the institution's IT portfolio.

- Working with the U.S. Copyright Office to develop modernized copyright systems and practices, in accordance with the copyright law and public objectives.

Success with this strategy entails supporting modernization of the U.S. Copyright Office with respect to technology and infrastructure, registration services, and the accuracy, timeliness, and searchability of copyright records. Also important is working to assure the effective exchange of bibliographic data and the smooth transfer of the copyright deposits most critical to the current and future national collection.

Information Technology Management and Operations

The Library has focused in earnest on its information technology management challenges. In January, shortly after I became Deputy Librarian, the Library stopped temporary rotations into the position of CIO and began a nationwide recruitment effort that culminated with Mr. Barton's appointment. At that time we also began planning to realign the Library so that the OCIO could focus solely on IT functions. While these changes were pending, we brought Ms. Scheffler in from the U.S. Copyright Office and supported her with a hands-on Deputy CIO to begin addressing known issues.

Early this spring, the Government Accountability Office (GAO) delivered companion audit reports to the Library that severely criticized both the institution's overall IT planning, management, and operations, and the U.S. Copyright Office's planning and justification for certain IT investments. The Library Inspector General (IG) also delivered reports on IT investment management and system development life cycle management. Together, these reports offered dozens of specific policy and operational recommendations to the Library. We welcome these examinations and the constructive guidance they give.

That knowledge and guidance has proven critical to developing the dynamic, state-of-the-industry IT infrastructure and management the Library needs. In many cases, the findings and recommendations confirmed the Library's own observations and plans to implement improved organization, infrastructure, and services to meet our vision of IT for the Library of Congress. The new CIO has prioritized, in his two months on the job, establishing productive relationships with Library components (and their IT operations) so that he can develop an understanding of their requirements and better deliver the IT services they need.

The GAO report was structured around six themes. The themes are itemized below and include updates on some of the key actions undertaken in each area.

- First, to provide strategic direction for use of IT resources through IT strategic planning, enterprise architecture improvement planning, and human capital planning.

The Library has been using the interim IT strategic plan published in April of this year as a guide to improving operations. In the coming weeks, we will finalize a new IT strategic plan that is linked to the institutional strategic plan for fiscal years 2016-2020. We established an office of IT Strategic Planning and Investment Management within the OCIO. This office has taken over updating the enterprise architecture and has established processes to define the future IT state and how best to achieve it. An outside expert is verifying and validating the work of this office and identifying changes that could be beneficial. We are developing an employee IT skills assessment that will be modeled on approaches used successfully in other organizations and will provide a baseline for future training and staff requirements.

- Second, to provide a framework for effective IT investment decision-making and investment management.

With the participation of Library stakeholders, we have refined an IT strategic governance process that defines roles among the Library's Executive Committee, IT Steering Committee, Architecture Review Board, and other governance bodies. The process is being incorporated into appropriate Library of Congress regulations and directives.

The principal benefit of this process will be standardized documentation for investment proposals and regular reporting on investment status. We already are using such documents in decision-making. In a meeting on the Library's fiscal 2017

budget request, the Executive Committee worked from IT investment proposals that had been reviewed and annotated by the OCIO and the relevant bodies. We will refine and expand the process going forward.

Just as process and documentation are important, data are, too. This year we completed a physical inventory of Library IT assets. The data will inform our assessments of support requirements, life-cycle replacement, and other regular operational matters. We developed an approach for categorizing IT expenditures (in addition to basic budget object-class coding) that is being used in executing the fiscal 2016 budget. The refined financial data will inform the Library's strategic planning.

- Third, to plan and manage IT acquisitions to deliver required capabilities on time and within budget through cost estimating, scheduling, and risk management.

With the IG's support, the Library has undertaken an analysis of IT-related outlays, which will help as we develop project management cost guidelines. These guidelines are being added to existing schedule and risk management principles. A new Project Management Office, which reports directly to the CIO, leads this effort.

- Fourth, to protect IT systems and reduce the risk that they may be compromised.

Like all federal agencies, the Library is keenly aware of the potential for compromise of its data. Among other security actions, this year we began implementation of the National Institute of Standards and Technology (NIST) risk management framework, and adopted government practices for conducting privacy impact assessments.

- Fifth, to ensure that IT services meet the needs of component units.

The Library has developed Service Level Agreements (SLAs) that describe baseline services the OCIO is providing to Library units with regard to email, other commodity IT, and basic services. Next, the OCIO is working with program offices to develop supplemental agreements that establish shared expectations for support for mission-specific services and applications.

- Finally, to allocate IT resources efficiently and effectively, reducing duplication or overlap.

The Library shares the auditors' concerns about potential duplication or overlap in IT services between the OCIO and Library units. While commodity IT,

infrastructure, and security are most effective when managed centrally, we concluded that there are mission-specific program systems that are best managed at the service-unit level, in coordination with the Library OCIO. Within an enterprise IT model, the CIO will offer recommendations to the Executive Committee and to me as he develops a deeper understanding of the needs of each service unit and identifies possible synergies and cost savings.

A consistent theme through all of the GAO and IG recommendations is the need for the Library to be more knowledge-based and data-driven in managing IT. With an experienced federal CIO and a re-energized IT shop, the Library is positioned to adopt government and industry best practices that make sense for the Library and to structure IT success around regular feedback from the systems themselves, from the budget and project reporting, and from users.

The Library's new CIO started just as we experienced an IT-related problem. As the Committee is aware, in late August the Library had an outage of key systems, including Congress.gov, the U.S. Copyright Office electronic copyright registration system (eCO) and the Braille Audio Reading and Download (BARD) system of the National Library Service for the Blind and Physically Handicapped.

Such a break in service to users is unacceptable and we deeply regret it. All the systems were restored to operation; however, the incident illustrates the operational challenges the Library must address at the same time it is implementing strategic IT management reforms.

Every year, the Architect of the Capitol (AOC) performs required maintenance on the electrical systems in Library buildings. This work entails shutting off both normal and emergency power. As in previous years, a team of representatives from across the Library planned extensively for this year's power outage and system shutdown that was to occur over a weekend. The Library backed up applications and databases and successfully brought down servers, storage, and network devices. After receiving AOC approval, the Library began to bring systems back up. The restoration proceeded as planned except that a data storage unit containing several Library applications and parts of the eCO system failed during its startup sequence.

A review determined that vendor error in replacing a hardware component of the storage unit caused the failure. While the vendor immediately corrected the installation error, the unit took 10 days to rebuild.

The critical knowledge we gained from this failure is that we must have sufficient redundancy, capability, and security built into both the primary and alternate computing

facilities, and the CIO has already directed corrective actions. In addition, OCIO is researching data-facility and cloud-computing options that may be better able to support Library needs for continuous operation of critical systems.

The inability to restart systems after the annual power outage was unusual; however, to ensure we properly identified lessons learned and actions to be taken, I asked the Library Inspector General to perform an independent review of the event.

I have also asked the IG to conduct three additional reviews that will help improve IT management and service Library-wide, including service to the U.S. Copyright Office.

- Review high priority Tier 1 systems and how they are configured. Congress.gov, the Library's web-based legislative information system, and eCO are two such Tier 1 systems.
- Look into best practices for storage infrastructure and make strategic and operational recommendations for current, intermediate, and long-term data storage needs.
- Assist in calculating IT costs by activity and category in far greater detail than the Library has done previously.

I am confident that with leadership from our new CIO, information from the IG, and methodical action by Library engineers, we will proactively address known issues and be better positioned to respond to unanticipated incidents in the future.

U.S. Copyright Office Modernization

As the Register recently noted in the U.S. Copyright Office strategic plan, "there is no question that [the Copyright Office] must modernize to meet current and future needs." The Library strategic plan calls for the institution as a whole to work with the Copyright Office to develop modernized copyright systems and practices, in accordance with the copyright law and public objectives.

I am proud of the work of the U.S. Copyright Office and its very dedicated staff. As an attorney, I recognize the significance to authors, practitioners, and the courts that the Copyright Office published the 3d edition of *The Compendium of U.S. Copyright Office Practices*, the first comprehensive overhaul and restatement of the Copyright Office's practices and standards in over 25 years. Recent Copyright Office policy studies have

informed Congressional debate and public understanding on topics of broad interest such as the music marketplace, orphan works, and mass digitization, as well more esoteric topics that are part of the complex field that is copyright. The succinct analysis of federal court decisions the Copyright Office presents in its searchable online Fair Use Index makes the principles and application of the fair use doctrine more accessible and understandable. I also appreciate the public process the Copyright Office followed when updating its fee structure and the careful and thorough formal rulemaking it conducted regarding anti-circumvention exemptions under the Digital Millennium Copyright Act (DMCA). The Library decision in the recent DMCA rulemaking was recently published in the Federal Register.

The Library has a fundamental interest in a strong copyright system. Too often, the description of the Library's interest in copyright is reduced to acquisition of materials for the national collection under the mandatory deposit provisions of the law. These materials are essential, of course, as they ensure a complete set of the expression of the nation's intellectual and creative work is available to inspire progress for current and future generations. Nevertheless, as an institution with a mission to support empowerment through knowledge, the Library supports the goals of the national copyright system. The work of the U.S. Copyright Office—advising Congress, the courts, and the executive branch on copyright matters; registering copyrights; facilitating commerce through licensing; and providing public access to records of copyright ownership, for example—is an integral part of the Library's mission to provide the knowledge that makes progress possible and ensure that creators' rights are protected so that progress continues. I am committed to supporting the Copyright Office's efforts as it begins to implement its own new strategic plan.

Well-developed and flexible information technology systems are critical to the administration of both a modern Library of Congress and a modern Copyright Office. This is an area where the Copyright Office and the Library are working together to improve internal operations and better meet customer needs. For example, we have made some recent changes in IT management. First, a new approach to IT strategic governance establishes documentation requirements and review processes for all IT investments. The intent is to produce better-structured information upon which to make decisions and from which to track performance. The Copyright Office will maintain IT investment evaluation and selection processes for their mission-specific systems, with approval by the Librarian, provided they produce similarly auditable documentation and coordinate with the CIO on security and use of Library infrastructure. Second, the Library started testing "agile" IT contracting methods. These methods are designed to make system development efforts move faster and be more responsive to user requirements. Finally, the Library is considering other data center and cloud-based computing options that can provide the

redundancy and capability required by Copyright Office customers and users of other Library services.

The Library's support for the U.S. Copyright Office will draw upon the knowledge the Copyright Office has gained about its users through the public processes it has conducted over the past year. This knowledge, combined with the Library's increased focus on IT operations and industry standards should help us make great advances together.

Chairman Miller and members of the Committee, I thank you again for this opportunity to provide testimony on key issues facing the Library. I am confident we are turning the page and implementing the necessary changes to make the Library and all its central functions better for the long term. I look forward to working closely with you on these challenges.

The CHAIRMAN. Thank you very much.
The Chair now recognizes Register Pallante.

STATEMENT OF MARIA A. PALLANTE

Ms. PALLANTE. Chairman Miller, Ranking Member Brady, and Members of the Committee, thank you for holding this public hearing and for your concern in particular about customer service.

My staff and I have dedicated the past few years to modernization issues, both assessing gaps in the copyright law and gaps in copyright administration. Through this work it has become clear to us that major operational changes are needed for the Copyright Office if it is to meet the dynamic needs of the global marketplace that we serve.

Technology is obviously the cornerstone of a modern copyright system. This is why in October 2011 I announced a number of multiyear special projects, including a technical upgrades project from which we published a major assessment of customer experiences and a series of baseline recommendations. The project team recommended that we develop a robust, responsive, and highly secure enterprise architecture decoupled from Library operations and dedicated to the unique and critical mission of administering the copyright law.

I also created the first Chief Information Officer position on the Register's management team in 2012. This Copyright Office CIO was a recommendation from public interest organizations and copyright owners alike. But this is just the beginning. The Copyright Office will need a robust team of technology and data experts. These experts should not merely be assigned or on call from another part of the agency, but rather be integrated into the Copyright Office mission where they can work side by side with legal and business experts and with direct, not indirect, accountability to the Register.

Just yesterday I released an exciting 5-year plan, copies of which you should have received, that draws upon several years of deliberative analysis and public processes. It incorporates extensive public recommendations. As stated in the plan, modernization is about more than upgrades to hardware and software. The office is at a time where we need to re-envision almost everything we do, including how customers register claims, submit deposits, record licenses, file security interests, share royalty information, and utilize expert resources. Although it is not the focus of this hearing, many policy issues are dependent upon modern IT systems, including improvements to music licensing, orphan works, and small claim solutions.

In the current paradigm, modernization will depend upon and be subject to IT services from the Library of Congress, but this central management of IT resources has never worked well for the copyright community. It has, in my opinion, quite literally disconnected the Register's statutory responsibility to administer the copyright law from the tools, technologies, and staffing that are necessary to do so. It should be alarming to all of us that under this arrangement no one in the agency has complete control of or complete accountability for the authoritative records of copyright ownership under U.S. law.

IT challenges are difficult to divorce from larger governance questions. The Library and the Copyright Office have always had important but distinct missions. It does not serve either institution to further conflate or entwine them. Such conflation, in fact, is contrary to the original goals of Congress, which in 1897 created the Copyright Office for the purpose of separating copyright functions from Library functions. These boundaries were important then, but they are much more important today.

My goals for the Copyright Office reflect all of my experience as a copyright attorney—some 25 years—and 4 years of public processes that I conducted as Register. Our customers should be able to transact easily, quickly, from anywhere at any time, using consumer-friendly platforms, mobile technologies, and modern metadata. They should have searchable digital records that provide the lifecycle of a copyright interest from creation to public domain and a chain of title that supports integration of third-party data. These services, performed properly, will fuel any number of innovative businesses and ensure that both authors and users of intellectual property receive the benefits and the presumptions of the law. This is what copyright administration is about in the 21st century.

In closing, I want to thank my colleagues at the Library of Congress and my friend David Mao for engaging on these complex issues and I want to thank GAO for sharing its expertise this past year. I hope that the Library can support these goals. But over the past few years that support has been subservient and it has also been hostile at times. Thank you.

[The statement of Ms. Pallante follows:]

Maria A. Pallante
Register of Copyrights and Director of the United States Copyright Office

As United States Register of Copyrights, Maria A. Pallante directs the legal, policy, and business activities of the United States Copyright Office. The Copyright Office administers important provisions of Title 17, including the nation's copyright registration and recordation systems and certain statutory licenses. The Register and her staff lead public discussions in the field of copyright law, act as principal advisors to Congress on matters of domestic and international copyright policy, and support a variety of intellectual property efforts across the U.S. government, including appellate litigation, trade negotiations, and treaty implementations. Ms. Pallante assumed her duties on June 1, 2011, after serving five months as Acting Register.

Prior to her appointment in 2011, Ms. Pallante held two senior positions in the U.S. Copyright Office, serving first as Deputy General Counsel (2007–2008) and then as Associate Register & Director of Policy and International Affairs (2008–2010). From 1999–2007, she was Intellectual Property Counsel and Director of Licensing for the worldwide Guggenheim Museums, headquartered in New York. She also worked for two authors' organizations in New York, serving first as Assistant Director of the Authors Guild, Inc., and then as Executive Director of the National Writers Union, in each case working on copyright policy, transactions, litigation, and freedom of expression issues. She practiced briefly with the Washington, D.C. law firm and literary agency Lichtman, Trister, Singer and Ross, and completed a clerkship in administrative law for the appellate division of the U.S. Department of Labor.

Ms. Pallante is a 1990 graduate of the George Washington University Law School. She earned her bachelor's degree in history from Misericordia University in Pennsylvania, where she was also awarded an honorary doctorate of humane letters.

FOCUS OF TENURE

Under Ms. Pallante's leadership, the U.S. Copyright Office commenced a two-year evaluative process to address current complexities in the copyright system and to prepare the Copyright Office for future challenges. She released the public paper *Priorities and Special Projects of the United States Copyright Office* in October 2011, which identified seventeen priorities in policy and administrative practice and ten special projects for the Office. Using the *Priorities* document as a guide, the Copyright Office engaged with colleagues and customers across the public and private sectors to discuss a variety of issues relating to the quality and efficiency of Copyright Office services and possible future directions. Some of these discussions took the form of meetings or public roundtables outside the capital city, including in Los Angeles, Silicon Valley, New York, and Nashville. The public feedback from this effort will help to define the Office's long-term strategic plan.

In March 2013, Ms. Pallante helped initiate a comprehensive congressional review of U.S. copyright law, through her Horace S. Manges Lecture, *The Next Great Copyright Act*, presented at Columbia Law School, as well as through subsequent testimony before the House Judiciary Committee. In November 2013, she delivered the Christopher Meyer Memorial Lecture at the George Washington University Law School, entitled *The Next Generation Copyright Office: What it Means and Why it Matters*. Other speeches include *Review and Reflection: Copyright Hearings and Related Discourse in the Nation's Capital* (February 2014); *ASCAP at 100* (February 2014); *The Curious Case of Copyright Formalities* (April 2013); and *Orphan Works & Mass Digitization: Obstacles & Opportunities* (April 2012).

During her tenure, Ms. Pallante released the first comprehensive revision of the Compendium of U.S. Copyright Office Practices in more than two decades. She has delivered to Congress the following policy studies: *Orphan Works and Mass Digitization* (June 2015); *Copyright and the Music Marketplace* (February 2015); *Resale Royalties: An Updated Analysis* (December 2013); *Copyright Small Claims* (September 2013); *Federal Copyright Protection for Pre-1972 Sound Recordings* (December 2011); *Legal Issues in Mass Digitization: A Preliminary Analysis and Discussion Document* (October 2011); and *Report on Marketplace Alternatives to Replace Statutory Licenses* (August 2011). Additional studies are planned or pending, including in the area of software in everyday products and the making available right.

Ms. Pallante has created several new programs to bring additional expertise to the Copyright Office. These include the Barbara A. Ringer Copyright Honors Fellowship, a distinguished public service clerkship for attorneys in the early stages of their careers, and the Abraham L. Kaminstein Scholar in Residence Program, an opportunity for leading academics to work at the Copyright Office on mutually beneficial projects. Her educational initiatives include the Copyright Matters Lecture Series, a community forum by which industry experts discuss the practical implications of copyright law in the 21st century, and the Copyright Academy, an internal program by which staff study a variety of complex legal provisions and judicial interpretations. She also created a research program for law schools, in which professors design courses and projects around timely issues and students receive support and direction throughout the semester from Copyright Office experts.

**Statement of Maria A. Pallante
Register of Copyrights and
Director of the United States Copyright Office**

**Before the
Committee on House Administration**

United States House of Representatives

December 2, 2015

**“Improving Customer Service for the Copyright Community:
Ensuring the Copyright Office and the Library of Congress
Are Able to Meet the Demands of the Digital Age”**

Chairman Miller, Ranking Member Brady, and Members of the Committee, thank you for inviting me to testify today about customer service for the copyright community in the digital age. This statement describes the statutory responsibilities of the United States Copyright Office and the public discussions and modernization goals that have been the focus of my work as Register. In undertaking this work, it has become clear that the Office and the Library of Congress have been steadily evolving in separate directions since Congress enacted the 1976 Copyright Act. The Office will need changes, and in some instances wholly new paradigms, if it is to meet the dynamic needs of the marketplace it is meant to serve.

Mission of the United States Copyright Office

The United States Copyright Office has a critical mission within the federal government. It administers the nation’s copyright laws for the advancement of the public good; offers services and support to authors and users of creative works; and provides expert impartial assistance to Congress, the courts, and executive branch agencies on questions of copyright law and policy. Through this work, the Office supports a vibrant marketplace of creativity and technological innovation that contributes trillions of dollars to the global economy and immeasurable value to society at large.

Copyright Office officials possess wide-ranging expertise in the Copyright Act, related provisions of Title 17, relevant judicial opinions, foreign copyright laws, international copyright treaties, trade agreements, and related business transactions, and are essential participants in bilateral and multilateral trade negotiations of the United States. Among other statutory duties, the Office examines, certifies, and registers copyright interests—including in music, motion pictures, books, and software—and publicly records commercial and noncommercial instruments involving the scope, term, transfer, and licensing of copyright interests. The Office administers several compulsory licenses (including, for example, the collection and distribution of over \$300 million in royalties in 2015) and provides legal review of royalty rate and distribution proceedings. It is responsible for regulations, practices, and educational programs that implement and explain the complex provisions and parameters of copyright law for the benefit of the general public, legal practitioners, libraries, educators, and a variety of large and small businesses.

Modernization and Strategic Plan

It has become clear that both the copyright law and the Copyright Office require updates, and I am grateful to lawmakers for reviewing these related goals comprehensively and in tandem. In the past few years, the Office has supported the work of Congress by conducting major studies and administering public processes about future goals. The entirety of this work is available at www.copyright.gov, and much of it is listed in our five-year strategic plan, further discussed below. Many policy issues, including improvements to copyright registration, copyright recordation, fee schedules, music licensing, orphan works, and small claims solutions, are directly related to, if not contingent upon, Office modernization. Our exacting work in these areas is well documented and incorporates considerable public input.

As many have stated, technology is the cornerstone of a modern copyright system and, upon becoming Register, I made it an immediate priority. Thus, in *Priorities and Special Projects of the United States Copyright Office October 2011-October 2013*, I announced a Technical Upgrades project to review potential improvements to Copyright Office operations. The project generated transparent feedback from all parts of the copyright community, as documented in the resulting February 2015 report. Among other points, the report strongly recommends building a technology enterprise solution that is designed for and accountable to the complex needs of the Office—and decoupled from central Library of Congress control.

In 2012, I created a Chief Information Officer position on the Register's management team (filled in 2013), following recommendations from public interest organizations and copyright customers alike. In the past two years, the Copyright Office CIO has engaged robustly with our customers and employees, and completed numerous technology assessments and planning efforts. But this is just the first phase. The Office will need to hire a robust team of technology and data experts to manage planning, project management, and maintenance requirements. These experts should not merely be assigned or on call from another part of the agency, but rather be integrated into the Office mission where they can work side by side with the legal and business teams.

Just yesterday, the Register's Office published the final version of the strategic plan, entitled *Positioning the United States Copyright Office for the Future, 2016-2020* (attached to this testimony for inclusion in the record and available on our website at <http://copyright.gov/reports/strategic-plan/sp2016-2020.html>). This plan is the result of several years of deliberative groundwork and public review that began with the *Priorities* projects mentioned above. As stated in the plan, the Copyright Office is at a point in time where it must re-envision almost all of its services, including how customers register claims, submit deposits, record documents, share data, and access expert resources, and it requires meeting the diverse needs of individual authors, entrepreneurs, the user community, and the general public.

The strategic plan sets forth six strategic goals: administering U.S. copyright laws effectively, efficiently, and skillfully to benefit authors and the public; making copyright records easily searchable and widely available; providing impartial expert assistance to Congress, executive branch agencies, and the courts; delivering outstanding information services, educational programs, authoritative publications, and other expert resources; building a robust and flexible technology enterprise dedicated to a modern copyright agency; and recruiting a diverse pool of legal, technology, and business experts. In addition, the plan provides dozens of measurable and transformative objectives tied directly to the goals of the copyright law, including the development

of new web tools, secure tracking and transaction systems, business-to-business prototypes, security and privacy measures, and a host of nuanced regulations for emerging or complex areas of authorship.

Implementation of the plan will require significant collaboration with experts in the copyright and technology sectors, and, when successful, will result in a Copyright Office that is as dynamic and future-focused as the marketplace it supports. The plan anticipates an updated and balanced funding strategy that is more appropriately tied to the value of the U.S. copyright system. One way to look at this is as follows: the Office is working in an institutional paradigm designed for the analog world, roughly the 1970s, and is dependent upon funding strategies from that same era. The strategic plan provides a path to leapfrog this trajectory, however, to the benefit of all who rely on the copyright system.

IT Governance and Investments

As many have noted, although the Register and her staff have primary legal responsibility for administering the copyright laws of the United States, officials in the Library of Congress control most of the tools necessary to perform this work, including the IT infrastructure and network that hosts registration and recordation software and public services. This IT arrangement is outmoded, frustrating, and inefficient, and it has provided substandard service to the Copyright Office and copyright customers. Indeed, the Office has never been granted administrative privileges to the operating systems, databases, authentication services, Internet services, security services, storage systems, and network services that are fundamental to its work.

As required by our Strategic Plan, and pursuant to congressional direction, the Copyright Office is currently analyzing the specific technology requirements for a modern, dedicated technology enterprise, as well as the associated costs. This follow-on work will include appropriate public processes regarding a variety of data and cloud-based strategies that will allow the Office to be interoperable with, and more responsive to, the copyright and technology businesses that extract, leverage, and otherwise rely on copyright information.

In this technology work, the Copyright Office greatly appreciates, and has learned from, the expertise of the Government Accountability Office (GAO). The Office swiftly took steps to implement the two recommendations (regarding IT investments and IT planning) in the GAO's March 2015 report, *Copyright Office Needs to Develop Plans that Address Technical and Organizational Challenges*, and will continue to look to GAO as a resource for benchmarks and best practices in other areas. Nonetheless, it should be understood that, in the current environment, Office modernization is necessarily tied to the Library of Congress's ability to correct the systemic deficiencies identified by GAO in its primary audit, *Library of Congress: Strong Leadership Needed to Address Serious Information Technology Management Weaknesses*. Among other issues, this audit describes 31 deficits that will necessarily take years to address.

The questions for the future are what is the promise to Copyright Office customers and why should they be satisfied by a renewed commitment to the same central processes that so completely failed? To provide one concrete example of the risk involved, this past August, the Office lost registration and other online services for nine days due to an extended systems failure following routine facilities maintenance in which the Architect of the Capitol powered down the Madison Building. These underlying systems are owned and managed solely by Library of Congress staff and vendors,

under Library-managed contracts, and yet they are essential to running online registration (eCO) and other Office software applications.

Once apprised of the outage, the Copyright Office became extremely concerned about the safety and integrity of its records. Because there appear to be a number of outstanding questions regarding the protocols and protection measures that were (or were not) taken, I have pressed the importance of a third-party investigation with both the Acting Librarian and the Inspector General.

Ideally, Copyright Office systems should remain available to customers during routine maintenance and testing, meaning that in such a situation the Office should be able to rely upon the Library-managed alternate computing facility (ACF) to maintain its operations. In fact, the Office requested to “fail over” to the ACF during the planned power shutdown to maintain service to its customers, but after investigation, the interim Library of Congress Chief Information Officer discerned that security controls were inadequate for copyright administration.

Whenever the Copyright Office is taken offline, it affects customers around the world. They cannot submit registrations, check the status of pending applications, complete business transactions, or obtain documents required by courts (other than through burdensome paper processes). But it also affects the majority of Office employees, who are unable to access files, process applications, or address backlogs, and who must, instead, manage public confusion and anger. In addition to these concerns, such an outage inevitably impacts the flow of Office revenue.

Because copyright records are the statutory responsibility of the Register—but the Copyright Office does not own or manage the IT infrastructure and network upon which they depend—there is, in effect, no one within the agency who has full and sufficient accountability for copyright data in the event of a failure. Given the fact that the Office database is the authoritative record of copyright ownership under U.S. law, this is an alarming state of affairs.

Relevant History and Related Issues

Although IT challenges are a focus of this hearing, they cannot be easily divorced from larger governance questions. While there is an historic relationship between the Library of Congress and the Copyright Office, their roles are in fact very separate, and it does not serve either institution or the public to conflate or entwine them. The Register carries out very specific and complex legal duties that serve a variety of important, and sometimes competing, public equities. The work of the Office directly affects the legal rights and economic interests of individuals, businesses, and members of the public. In this regard, it must also be noted that libraries—including the Library of Congress—are active and effective advocates in copyright debates, and they are regular participants in the Register’s studies and regulatory proceedings. These developments, largely a consequence of the digital revolution, create more—not less—reason to ensure safeguards and separation across agency lines.

It is instructive that when Congress created the Copyright Office in 1897, its overarching goal was to separate copyright functions from Library of Congress functions. The outcome pleased everyone, including the Librarian, who testified at the time that the volume and complexity of copyright matters were a drain on the Library’s core mission. Oddly, the separation of Office functions that Congress intended to erect has eroded over time, in inverse proportion to the extraordinary growth of the copyright law and expansion of the Register’s statutory duties.

This erosion is not without consequences. Today, there are a number of offices in the Library of Congress that affect or seek to inform the statutory work of the Register and her relationship with the Librarian. These positions exercise significant de facto control over the national copyright system by virtue of IT, budget, acquisitions, and staffing authorities. While it may be understandable that the Library, with some 3,000 employees, would seek to rely on senior staff to manage its various operations, this arrangement has created a number of conflicts—some merely frustrating, others serious—involving funding, staff hires, website administration, and, more substantively, registration and deposit policies. Certainly, there should be cooperation between Copyright Office and Library staff, but the parameters of this work need to be appropriately defined.

During the past two years, some Members of Congress have questioned, more directly, the nineteenth century organizational structure that is at the heart of the Library of Congress-Copyright Office relationship. Under this structure, the Librarian appoints the Register and provides general supervision over Office affairs, but recent judicial precedent has held that the Librarian of Congress is accountable to the executive branch when it comes to copyright functions. To the extent this fact would threaten the impartial and nonpartisan tradition of the Register's position, a recent draft House Judiciary bill would, among other things, ensure that the Register remains freely and independently available to Congress. At the same time, Members and stakeholders have suggested that the nation's leading copyright official should be appointed by the President and confirmed by the Senate, bringing the Register's position into alignment with other intellectual property posts and providing for a more modern chain of accountability. The Office appreciates and is respectful of these deliberations.

In closing, I want to underscore that copyright law is chasing an exponential increase in the way people create, distribute, and consume copyrighted works. As part of this new world order, customers should be able to transact easily and quickly with the Copyright Office, from anywhere and anytime, using consumer-friendly platforms, mobile technologies, and modern data paradigms. This is a fast-paced, results-driven focus for a government agency, but based on all of my experience I am convinced it is the right one.

Thank you for your interest and support on these issues and for inviting me to testify today.

The CHAIRMAN. Thank you very much.
The Chair now recognizes Mr. Willemssen for his testimony.

STATEMENT OF JOEL C. WILLEMSSEN

Mr. WILLEMSSEN. Thank you, Chairman Miller, Ranking Member Brady, Members of the Committee. Thank you for inviting us to testify today. As requested, I will summarize our statement on our reports issued earlier this year on IT issues at the Library of Congress and at the Copyright Office.

Regarding the Library of Congress, our March report identified weaknesses in numerous IT management-related areas. Examples of these were, one, not having an IT strategic plan detailing how the Library intended to address future goals and strategies, which was especially important given that information is increasingly being created, shared, and preserved in digital formats.

Two, the Library had a highly inaccurate and inconsistent inventory of its information technology assets.

Three, the Library did not know how much it was spending on IT. In the absence of such information, GAO conducted work to estimate expenditures and determined that the Library had at least \$119 million in IT obligations for fiscal year 2014.

Four, the Library was not effectively overseeing its investments in IT and its acquisitions were not always guided by well-developed risk management, and cost and schedule estimating approaches.

Five, deficiencies in information security and privacy practices and associated technical controls placed systems and data at risk of unauthorized access, modification, or loss.

Six, the Library's central IT office did not provide services that satisfied the other operating units. Accordingly, these other units often considered other options for addressing their IT needs.

A key factor contributing to these and other weaknesses was that the Library lacked a Chief Information Officer with clear responsibility and adequate authority. Subsequent to our report being issued, the Library appointed a Chief Information Officer. However, it remains to be seen whether this position will have clear responsibility and adequate authority to drive needed improvements.

Overall, the Library generally concurred with our 31 recommendations intended to provide a sound foundation for improving the management of IT. Further, the Library has initiated a range of actions to address the recommendations. However, none of the 31 has been fully implemented yet.

Looking forward, the Library needs to commit to milestones for implementing our recommendations and focus on meeting those milestones in order to make progress in improving its IT management.

Turning to the Copyright Office, our March report identified a number of IT challenges, particularly with regard to the Electronic Copyright Office system, or eCO, which is used for, among other things, the registration of copyrights. These challenges included numerous user complaints about the performance and usability of the eCO system.

We also reported that the Copyright Office had proposed investments in several IT improvement projects, but had not yet developed an IT strategic plan to guide its efforts. We noted that the of-

fice had been hindered in developing long-term plans due to the absence of such plans for the Library as a whole. In addition, dissatisfaction with IT services provided by the Library led Copyright to pursue its own IT activities.

Since GAO's review, Copyright has issued an overall strategic plan that, among other things, describes goals and objectives for improving its IT environment. Going forward, Copyright will need to follow through on its intentions to develop a more detailed IT plan that will include specific strategies, costs, and time lines. Such an approach, if implemented effectively, can lay the groundwork for modernization of systems critical to its mission.

That concludes the summary of my statement. I look forward to your questions.

[The statement of Mr. Willemssen follows:]

Joel C. Willemsen

Mr. Willemsen is the Managing Director of Information Technology Issues at the U.S. Government Accountability Office. In this position, he has overall responsibility for GAO's evaluations of information technology across the federal government. Specific responsibilities include government-wide and agency-specific assessments of computer security and critical infrastructure protection; electronic government; information collection, use, and dissemination; privacy; system and software development and acquisition; system operation and maintenance; enterprise architectures; technology investment management; and telecommunications.

Since joining GAO in 1979, Mr. Willemsen has led numerous reviews of information technology systems and management at a wide array of federal agencies. He frequently testifies on information technology issues before congressional committees, appearing as a GAO witness on more than 100 occasions.

Mr. Willemsen received bachelor's and master's degrees in business administration from the University of Iowa.

United States Government Accountability Office



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INFORMATION TECHNOLOGY

Library of Congress Needs to Implement Recommendations to Address Management Weaknesses

Statement of Joel C. Willemssen, Managing Director,
Information Technology

GAO Highlights

Highlights of GAO-16-197T, a testimony before the Committee on House Administration, House of Representatives

Why GAO Did This Study

The Library of Congress is the oldest federal cultural institution and the world's largest library. Its mission is to preserve and make available works of creativity and human knowledge, and to serve as the research arm of the U.S. Congress. In addition, the Library houses the U.S. Copyright Office, which is charged with administering the nation's copyright law. As information is increasingly created, shared, and preserved digitally, both the Library and Copyright Office rely on IT to support their missions.

GAO was asked to provide a statement summarizing its March 2015 reports on the Library's IT management and the Copyright Office's IT environment and plans for modernization. In preparing this statement, GAO relied on the work supporting these reports. GAO also interviewed Library and Copyright officials about more recent activities to implement GAO recommendations.

What GAO Recommends

In its March 2015 reports, GAO recommended that the Library of Congress take 31 actions to address weaknesses in six IT management-related areas and that the Copyright Office, among other things, develop an IT strategic plan. The Library concurred with GAO's recommendations, but it has yet to fully implement any of the 31 actions. GAO continues to believe that actions should be taken to fully implement these recommendations. For its part, the Copyright Office has taken steps to address GAO's recommendations, such as drafting a new strategic plan.

View GAO-16-197T. For more information, contact Joel C. Willemsen at (202) 512-6253 or willemsenj@gao.gov.

December 2, 2015

INFORMATION TECHNOLOGY

Library of Congress Needs to Implement Recommendations to Address Management Weaknesses

What GAO Found

In a March 2015 report, GAO identified widespread weaknesses in the Library of Congress's management of its information technology (IT) resources. These weaknesses spanned six IT management-related areas:

- **Strategic planning:** The Library had not developed an IT strategic plan that defined what it wants to accomplish with IT and strategies for achieving those results. Such a strategic approach is essential to the Library as information is increasingly created, shared, and preserved digitally.
- **Investment management:** The Library had not effectively implemented processes for selecting or overseeing its investments in IT. In addition, it did not have an accurate inventory of its IT assets and did not know how much it was spending on IT.
- **Acquisition management:** The Library had not fully implemented processes for ensuring that its IT acquisitions were guided by well-developed requirements, risk management practices, and reliable cost and schedule elements.
- **Information security:** Weaknesses in its information security and privacy programs, as well as weaknesses in technical security controls, placed the Library's systems at risk of unauthorized access, modification, or loss.
- **Service management:** The Library's central IT office did not provide services that satisfied the other units in the organization, leading to those units engaging in overlapping and duplicative activities and purchases.
- **Leadership:** The Library's lack of a chief information officer with adequate authority and clear responsibility for managing the agency's IT was a key contributing factor to the weaknesses GAO identified.

Since GAO issued its report, the Library has taken actions toward addressing these weaknesses; however, much more remains to be done. For example, it appointed a new chief information officer, but it remains to be seen whether this official will have clear responsibility and adequate authority to drive needed improvements.

Regarding the Copyright Office, GAO reported in March 2015 that the office's IT environment was to support its duties of receiving and examining copyright registration applications, maintaining deposited copies of copyrighted works, producing certificates of registration, and maintaining records of the transfer of copyright ownership. However, the office faced a number of IT challenges, particularly with regard to its Electronic Copyright Office system, which supports the registration of copyrights. These challenges included user complaints about the performance and usability of the system, information security weaknesses, and data retention and integrity issues, among other things. The Copyright Office was also hindered by inadequate IT services and support from the Library.

While the office had proposed investments in several IT improvement projects, it had not developed an IT strategic plan to guide its efforts and monitor progress in meeting its goals. Since GAO's review, the Copyright Office has issued an overall draft strategic plan that, among other things, describes goals and strategies for improving its IT environment.



U.S. GOVERNMENT ACCOUNTABILITY OFFICE

441 G St. N.W.
Washington, DC 20548

Chairman Miller, Ranking Member Brady, and Members of the Committee:

Thank you for inviting me to testify at today's hearing on ensuring the Copyright Office and Library of Congress are able to meet the demands of the digital age. As you know, the Library of Congress is the United States' oldest federal cultural institution, and its mission is to support the Congress in fulfilling its constitutional duties and to further the progress of knowledge and creativity for the benefit of the American people. In addition, since the late 19th century it has housed the U.S. Copyright Office, which is responsible for administering the nation's copyright system.

As technology has advanced and the needs of its users have evolved, the Library has come to rely increasingly on information technology (IT) systems to carry out its mission. Moreover, as we and others have highlighted in a number of reports, the Library has long faced challenges in effectively managing and modernizing its IT environment.¹ In addition, the Register of Copyrights has discussed the need for a modernized Copyright Office, to include upgrades to its current IT environment.

In my statement today, I will summarize the results and recommendations from two reports we issued earlier this year on the Library's management of the IT supporting its programs and operations and the Copyright Office's IT environment and plans for modernization.² In preparing this statement, we relied on the work supporting these reports, as well as interviews conducted in November 2015 with Library and Copyright officials to discuss efforts they had undertaken to implement our

¹GAO, *Management Review of the Library of Congress* (Washington, D.C.: May 7, 1996), available online at <http://www.gao.gov/products/156761> (vol. 1) and <http://www.gao.gov/products/156762> (vol. 2). Also see National Academy of Sciences, *LC21: A Digital Strategy for the Library of Congress* (Washington, D.C.: National Academy Press, 2000). The Library's Office of the Inspector General has also issued a number of reports on IT challenges at the agency.

²GAO, *Library of Congress: Strong Leadership Needed to Address Serious Information Technology Management Weaknesses*, GAO-15-315 (Washington, D.C.: Mar. 31, 2015), and *Information Technology: Copyright Office Needs to Develop Plans that Address Technical and Organizational Challenges*, GAO-15-338 (Washington, D.C.: Mar. 31, 2015).

recommendations. We also reviewed documentation provided by officials on these efforts.

The work on which this testimony is based was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. The reports discussed in this statement each contain a more detailed overview of the scope and methodology of the work we performed to conduct our reviews.

Background

Established in 1800, the Library of Congress is the world's largest library and serves as the research arm of Congress. Its collections include more than 36 million books and other print materials, 3.5 million recordings, 13.7 million photographs, 5.5 million maps, 6.7 million pieces of sheet music, and 69 million manuscripts. The items in its collection are received through a variety of sources, including through the copyright registration process administered by the U.S. Copyright Office.

Positioned within the legislative branch, the Library carries out its operations through a number of service and support units:

- The Office of the Librarian had overall management responsibility for the Library and carried out certain executive functions.³
- The Congressional Research Service (CRS) is responsible for providing Congress with nonpartisan legislative research and analysis.
- The U.S. Copyright Office is responsible for administering the Copyright Act, including copyright registration, recordation, mandatory deposit, and certain statutory licenses.

³Since the conclusion of our review, the Library announced that it had established new offices, including the Office of the Chief of Staff and the Office of the Chief Operating Officer, as well as a new service unit: National and International Outreach. These offices and service unit have subsumed the executive functions formerly belonging to the Office of the Librarian.

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- The Law Library provides Congress with ready access to reliable legal materials.
 - Library Services develops and preserves the Library's collections and also included the National Library Service for the Blind and Physically Handicapped (NLS), which directs the production of books and magazines in Braille and recorded formats.⁴
 - At the time of our review, the Office of Strategic Initiatives was responsible for the overall digital strategic planning for the Library and included the office of Information Technology Services (ITS), which was to support the Library's IT systems and infrastructure.⁵ The head of the Office of Strategic Initiatives also served as the agency's Chief Information Officer.
 - The Office of Support Operations was to provide essential infrastructure services to the entire Library.

IT Environment at the Library and Copyright Office

Like other federal agencies, the Library relies on a host of IT systems to carry out its mission. These include standard hardware (e.g., desktop and laptop computers, printers, and servers) and software (e.g., e-mail, word processing and spreadsheet programs, and Internet resources), as well as administrative and business systems, such as accounting, financial planning and budgeting, and human resources systems.

In addition, the Library's service units use systems that support their specific missions. For example, NLS uses a system to manage the production, distribution, and maintenance of audiobooks, and CRS uses specialized software to develop its reports.

At the time of our review, much of the responsibility for managing the Library's IT rested with the Office of Strategic Initiatives. More specifically,

⁴Since we concluded our review, NLS was moved from Library Services to National and International Outreach, a new service unit that was established as part of an internal Library reorganization.

⁵Since the time of our review, the Office of the Chief Operating Officer has subsumed the functions formerly belonging to the Office of Strategic Initiatives, including the office of Information Technology Services, as well as those of the Office of Support Operations. Under this reorganization, the Library's Chief Information Officer reports to the Chief Operating Officer.

ITS, a component of the office, was responsible for supporting the other service units by planning, designing, developing, and maintaining systems and their supporting infrastructure.

As of September 2014, the Library had at least 380 staff across the various service units dedicated to IT functions. In addition, it obligated at least \$119 million for IT during fiscal year 2014, with about \$46 million for staff salaries and \$73 million for goods and services, among other things. The Office of Strategic Initiatives accounted for about \$72 million of the total IT obligations across the agency, with the rest allocated to the other service units, who also make their own investments in IT.

The Copyright Office also relies extensively on IT to carry out its mission. It uses multiple systems to support its registration, recordation, and licensing functions. In particular, the office's Electronic Copyright Office (eCO) system is used by members of the public (e.g., authors) to register claims to a copyright and by Copyright Office staff to manage this process.

Weaknesses in IT Management across the Library Demonstrate the Need for Stronger Leadership

In March 2015, we reported that the Library had serious weaknesses in the management of IT across the organization.⁶ Specifically, the Library's policies, procedures, and implementation in six IT management-related areas had significant weaknesses. These six areas were (1) strategic planning, (2) investment management, (3) acquisition, (4) information security and privacy, (5) service management, and (6) leadership of the Chief Information Officer (CIO) and other key officials.

Library Lacked Tools for Effective IT Strategic Planning

Strategic planning is essential for an organization to define what it seeks to accomplish, identify strategies to efficiently achieve results, and guide its efforts. For IT, key elements are an IT strategic plan and an enterprise architecture that, together, outline the agency's IT goals, measures, and

⁶GAO-15-315.

timelines.⁷ In addition, effective human capital management is critical to ensuring that an organization's IT workforce has the necessary skills to support its goals.⁸

However, as we reported, the Library had not developed an IT strategic plan that was aligned with the agency's overall strategic plan and included results-oriented goals and measures, strategies for achieving its goals, and descriptions of how projects fit together to support these goals. Specifically, the Library had drafted an IT strategic plan that addressed some, but not all, of these elements, but at the time of our review it had not been finalized. Thus, the Library lacked a clear vision of what it wants to accomplish with IT and strategies for achieving those results. Such a strategic approach is essential to the Library as information is increasingly created, shared, and preserved digitally.

Regarding enterprise architecture, the Library had developed an architecture that described the current state of the Library's IT systems and operations; however, the data supporting this effort were not gathered from management and validated by stakeholders, calling into question its reliability. Moreover, the architecture did not reflect the target state of the agency's IT, the gaps between the current and target states, and specific steps the Library should take to move toward the target state.

The Library also fell short in its approach to IT human capital management. Specifically, it had not assessed the gaps between the current skills of its workforce and those that would be needed in the future, and developed strategies to fill those gaps. While individual

⁷As we have previously reported, a well-defined IT strategic planning process helps ensure that an agency's IT goals are aligned with its strategic goals; see GAO, *Social Security Administration: Improved Planning and Performance Measures Are Needed to Help Ensure Successful Technology Modernization*, GAO-12-495 (Washington, D.C.: Apr. 26, 2012). Similarly, enterprise architecture is an important tool to help guide an organization toward achieving the goals and objectives of its strategic plan. See GAO, *Organizational Transformation: A Framework for Assessing and Improving Enterprise Architecture Management (Version 2.0)* (Supersedes GAO-03-584G), GAO-10-846G (Washington, D.C.: August 2010).

⁸Practices for effective human capital management have been identified by both the Office of Personnel Management and GAO. See Office of Personnel Management, *The Human Capital Assessment and Accountability Framework—Systems, Standards, and Metrics* (<https://www.opm.gov/policy-data-oversight/human-capital-management/#url=Framework>) and GAO, *Human Capital: Key Principles for Effective Strategic Workforce Planning*, GAO-04-39 (Washington, D.C.: Dec. 11, 2003).

service units had undertaken their own skills gap analyses, the Library lacked an organization-wide perspective that would allow it to take a strategic approach to ensuring an adequate IT workforce.

Selection and Oversight of Investments Was Not Effective

Recognized practices for managing the selection and oversight of IT investments, such as those outlined in our IT investment management framework,⁹ are critical to ensuring that an organization is prudently investing in the right mix of projects to support its mission. These practices include (1) instituting a board for making investment decisions, (2) selecting investments that meet business needs, (3) providing investment oversight, and (4) capturing accurate and comprehensive information on those investments and other IT assets.

The Library had instituted an investment review board and established elements of a process for selecting investments; however, these were not always effective. Specifically, Library policy did not clearly define the responsibilities of its investment board by, for example, specifying when investment decisions should be made by the board and when they should be elevated to the Library's Executive Committee. Further, since the Library did not have a fully developed IT strategic plan or enterprise architecture, its investment management process was not fully coordinated with these processes, limiting the agency's ability to make investment decisions that effectively support its mission and goals.

In addition, while the Library had developed a process for selecting investments for funding based on a balancing of risk factors and program benefits, it lacked policies or procedures for "re-selecting" investments for continued funding once they were operational. This is significant because operational investments accounted for the majority of the Library's IT spending. Moreover, the Library had not integrated its investment selection and funding processes, meaning that decisions to fund projects were not informed by the evaluation of their relative risks and benefits. In some cases, individual service units secured funding for investments before bringing them to the investment review board—or the investments were not reviewed by the board at all.

⁹GAO, *Information Technology Investment Management: A Framework for Assessing and Improving Process Maturity* (Supersedes AIMD-10.1.23), GAO-04-394G (Washington, D.C.: March 2004).

Regarding investment oversight, the Library conducted assessments of investments' progress through reviews of variations from planned cost and schedule baselines and the management of risk, among other things. However, for three selected investments we reviewed, cost, schedule, and risk data were not always complete or reliable. This limited the Library's awareness of potential problems and its ability to take corrective action.

Further, the Library had not fully accounted for its IT-related expenditures but only collected that information for the subset of investments reviewed by the investment review board. Consequently, the Library did not know how much it spends on IT.

Similarly, the Library's primary inventory of IT assets (e.g., hardware such as personal computers) was highly inaccurate. For example, the inventory listed over 18,000 active personal computers, even though officials told us that fewer than 6,500 personal computers were actually in use. Also, the Library had conflicting inventories of information systems, which disagreed on the number of systems in the agency. Specifically, Library officials provided us with two lists of systems, one with 30 systems and one with 46. After we raised this discrepancy, we were provided with a revised list of 70 systems. In the absence of an accurate inventory, the Library may be unable to effectively prevent loss or theft of assets, and it may end up purchasing equipment that is duplicative of what it already has on hand.

Key Acquisition Practices Were Not Followed

Proper implementation of key IT acquisition practices can significantly increase the likelihood of delivering promised system capabilities on time and within budget. These practices include, among others, risk management, requirements development, cost estimating, and scheduling.

However, the Library had not developed organization-wide policies in any of these areas that fully address key practices. Partly as a result, these practices were not fully implemented for selected investments we reviewed. For example:

- Selected IT investments did not take such risk management measures as establishing a risk management strategy; evaluating, categorizing, and prioritizing risks; and developing risk mitigation strategies.

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- Investments did not effectively manage requirements by eliciting stakeholder needs and prioritizing customer requirements.
 - Cost estimates for selected investments did not sufficiently account for all costs, which is a foundational requirement for a reliable cost estimate.
 - Schedules for the selected investments were not fully reliable because they did not logically sequence planned activities to provide straightforward paths of critical activities.

Without establishing and implementing these key acquisition practices, investments may incur cost overruns and schedule slippages and fail to deliver capabilities needed to support the Library's mission.

Security and Privacy Weaknesses Threatened Library Information and Systems

Protecting its data and information systems is essential both to defend an agency's assets against cyber attacks and to protect sensitive information entrusted to it by the public. To do this, agencies should establish information security and privacy programs and effectively implement technical security and privacy controls, such as those outlined by the National Institute of Standards and Technology (NIST).

Consistent with NIST guidance, the Library had established security and privacy programs by delineating roles and responsibilities and developing policies and procedures. For example, it assigned security-related roles to appropriate officials, including the Librarian, Deputy Librarian, CIO, and Chief Information Security Officer. The Library also documented information security policies and procedures to safeguard its information and systems. Similarly, the Library developed policies to protect the privacy of data processed by its systems and designated the General Counsel as the agency's Chief Privacy Officer, with responsibility for managing the protection of personally identifiable information maintained by Library systems.¹⁰

¹⁰Personally identifiable information—or PII—is any information that can be used to distinguish or trace an individual's identity, such as name, date and place of birth, or Social Security number, or other types of personal information that can be linked to an individual, such as medical, educational, financial, and employment information.

However, the Library had not fully implemented key elements of its information security and privacy programs. For example, while the Library did establish and implement a process for reporting and responding to security incidents, it had not always

- developed a complete and accurate inventory of systems that would allow it to ensure that appropriate security controls had been applied;
- documented key controls in system security plans to inform officials about the security risks involved in operating those systems;
- conducted complete and effective security testing of its systems to ensure that controls were implemented and operating as intended;
- developed remedial action plans for identified security weaknesses and taken timely action to complete those it did develop;
- ensured that all systems had been appropriately reviewed and authorized to operate, increasing the risk that officials may not be aware of system security risks;
- ensured that all required users completed security awareness training;
- included appropriate security-related provisions in contracts for IT products and services; and
- fully assessed risks to privacy arising from the use of selected systems.

In addition to these program shortcomings, we also identified weaknesses in the implementation of technical security controls for nine selected systems. These included controls related to preventing unauthorized access, authorization, configuration management, boundary protection, patch management, and physical security. These weaknesses limited the effectiveness of security controls and placed sensitive information at risk of unauthorized disclosure, modification, or loss.¹¹

¹¹In June 2015 we issued a separate report with limited distribution that described in greater detail the technical control weaknesses identified during our review, along with 74 recommended actions to mitigate them.

IT Services Were Not Supporting Organizational Needs

Recognized best practices call for ensuring that an organization's IT services are aligned with and support its business needs. These include (1) developing a catalog of all current IT services delivered by the service provider to its customers and (2) establishing service-level agreements between the provider and customer to describe the services, specify the responsibilities of both parties, and document expected levels of service.

As mentioned previously, at the time of our review, the Library's office of Information Technology Services (ITS) was the central IT organization in the agency and was responsible for providing an array of IT services to other units within the Library. To its credit, ITS developed a service catalog that captured its current IT services, which included, for example, service desks, backup and recovery, and network services. However, ITS did not establish service-level agreements that covered all the services it provided to other units, or establish targets for expected levels of service. This increased the risk that the office would not provide services that meet the needs of other units in the Library, and in turn that IT would not effectively support the overall mission of the organization.

While ITS had undertaken some ad hoc efforts to improve the satisfaction of users throughout the Library, they were largely unsuccessful and were not guided by a documented plan that prioritized improvement projects and identified needed resources, schedules, and measurable outcomes.

Reflecting these weaknesses, a survey we conducted of the various service units showed that customers of the Library's IT services were generally not satisfied. Respondents cited a number of factors that contributed to their dissatisfaction, including a lack of transparency, poor service quality, inconsistent implementation of IT management processes, inconsistent communication, and use of outdated technology.

This dissatisfaction, along with the lack of an enterprise-wide approach to managing IT, had contributed to other units within the Library performing duplicative or overlapping activities. For example:

- Multiple service units maintained their own service desks.
- Service units conducted their own IT human capital assessments.
- Several units independently purchased similar IT assets, such as desktop or laptop computers, network devices, and server and desktop software.

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- One service unit purchased 82 24-inch computer monitors even though ITS had already purchased 100 similar monitors.
 - Service units independently managed their servers, networks, and websites.

Without more concerted efforts to improve the satisfaction of users of the Library's IT services, as well as reviewing the costs and benefits of overlapping or duplicative activities, the agency lacked assurance that it was cost-effectively using IT to support its mission.

A Lack of Strong Leadership Contributed to IT Management Weaknesses

As our research and experience at federal agencies have shown, agencies need a CIO with responsibility for managing their IT and clearly defined responsibilities between the CIO and officials responsible for IT management at component organizations. In addition, we have reported that CIOs and other former agency IT executives believed that it was necessary for a CIO to stay in office for 3 to 5 years to be effective and 5 to 7 years to implement major change initiatives.¹²

However, many of the IT management weaknesses we identified at the Library stemmed from a lack of strong, sustained leadership. Specifically, the agency's CIO did not have adequate responsibility for the agency's IT, including authority over commodity IT¹³ and oversight of investments in mission-specific systems made by the service units. In addition, five different people had filled the CIO position temporarily since 2012. The absence of strong, sustained leadership hampered the Library's ability to make needed improvements in the face of long-standing IT management challenges.

Since our report was issued, the Library appointed a new permanent CIO in September 2015, and this official heads a reorganized office that reports to the newly appointed Chief Operating Officer.

¹²GAO, *Federal Chief Information Officers: Responsibilities, Reporting Relationships, Tenure, and Challenges*, GAO-04-823 (Washington, D.C.: July 21, 2004).

¹³As defined by the Office of Management and Budget, commodity IT includes services such as IT infrastructure (e.g., data centers, networks, desktop computers, and mobile devices); enterprise IT systems (e.g., e-mail, collaboration tools, access management, security, and web infrastructure); and business systems (e.g., finance, human resources, and other administrative functions).

Copyright Office Needs to Develop Plans for Addressing Long-Term IT Needs

In our March 2015 report on the Copyright Office, we noted that it had been reacting to short-term needs, such as retiring legacy systems, but needed to develop concrete plans and strategies for how IT would support its mission and business needs in the longer term.¹⁴ The Copyright Office's mission requirements, including its use of IT, are driven by its role as the administrator of the nation's copyright law. Specifically, the office is required by law to, among other things, receive and examine copyright registration applications, collect and maintain deposited copies of copyrighted works, produce certificates of registration and certified copies of applications, and maintain records of the transfer of copyright ownership.

These responsibilities drive the office's use of IT to facilitate, for example, the electronic registration of works, examination of copyright registrations, and recording transfers of copyright. In particular, the Copyright Office relies heavily on its eCO system to support the registration process. This system provides a public interface for submitting applications as well as a back-end system for Copyright staff to process these applications. While the office relies on other legacy systems to support its recordation and licensing functions, Copyright staff told us that the office plans to consolidate functionality from all registration and recordation systems into eCO.

However, eCO has had significant technical issues, both with the system itself, which is managed by the Copyright Office, and its underlying infrastructure managed by the Library. Both internal and external users have highlighted challenges in using the system, as well as with the office's broader technical environment. These included the following:

- **Performance and usability:** Both internal and external users described challenges with eCO's performance and usability. These included the system freezing up multiple times daily and an interface that requires users to enter the same data multiple times. In an online survey by the office, one eCO user described the system as "hands down, the worst site I have ever had to navigate."
- **Security:** Consistent with our findings across the Library, as of February 2015, the Copyright Office did not have complete security

¹⁴GAO-15-338.

documentation for eCO, including complete security testing, a current authorization to operate, and a privacy impact assessment.

- **Data integrity:** Both the Copyright Office and the Library's ITS had identified issues with the integrity of data in the eCO system. For example, eCO was not properly saving registration certificates, and the office's General Counsel stated that it does not have a means of verifying the integrity of files maintained in its systems.
- **Data availability and retention:** A service-level agreement had not been established between the Copyright Office and ITS for the office's legal responsibility to retain unpublished works (including digital works) for up to 120 years. Maintaining access to these files for that long will require migration to new storage solutions as technology evolves.

In addition to these technical challenges, the Copyright Office faced organizational challenges related to the IT management weaknesses at the Library (as highlighted in our report and discussed above). For example, the lack of clearly defined roles and responsibilities among the Library CIO and the service units had impeded the Copyright Office's ability to meet its IT needs. In addition, the office had been hindered in developing its own IT strategic plan and other long-term plans due to the absence of such plans for the Library as a whole. Further, inconsistent service management had resulted in dissatisfaction at Copyright with IT services provided by the Library, which led the office to pursue IT activities on its own. As mentioned above, ITS did not always establish levels of expected services it provides to other units in the Library, and this has resulted in services that do not meet business needs. For example, according to the Copyright Office CIO, ITS controls when eCO is to be shut down for maintenance, and these scheduled outages had, at times, occurred during periods of heavy traffic from the office's external users.

**Copyright Office Had Not
Developed Plans for
Improving Its IT
Environment**

Although the Copyright Office acknowledged many of the organizational and technical challenges we identified, it had not yet developed adequate plans to improve its IT environment. Specifically, while the office had identified several proposed initiatives for making improvements and requested over \$7 million to fund them, it had not developed plans and proposals to justify those investments.

The office's proposed improvement projects included the following:

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- Reengineering the recordation process from an IT, legal, and administrative perspective and ultimately developing an online filing system.
 - Developing a secure digital repository for works that are registered and electronically deposited with the office for protection.
 - Creating a software development environment for future copyright-specific applications.
 - Developing a data strategy, plan, model, and standards for managing the office's records.

In addition, the office had researched needed technical upgrades to its electronic registration process and identified four areas in greatest need of improvement. These were (1) challenges with the current user experience, (2) challenges with access to and usability of copyright records, (3) inefficiencies with current copyright data, and (4) poor performance of outdated IT architecture. The research also resulted in proposed recommendations for improvements in these areas.

These activities notwithstanding, the Copyright Office did not develop plans to justify and provide direction for its investments, as called for by leading practices. Specifically, while the office developed funding requests for its improvement projects, they did not include key information such as 3-year cost estimates, the business needs driving the investments, how the investments aligned with the agency's strategic plan, or expected funding sources.

We also reported that the Copyright Office had not developed an IT strategic plan, including goals, measures, and timelines, to guide its IT improvement efforts and monitor progress in meeting its goals. This effort was hindered by the fact that the Library itself did not have an up-to-date IT strategic plan, and we noted that developing such a plan, aligned with the Library's future efforts, would help ensure the office's current and future investments would support its mission needs and avoid duplication with existing activities within the Library.

In October 2015, the Copyright Office released a draft overall strategic plan for fiscal years 2016 through 2020.¹⁵ The plan included six strategic goals and strategies to achieve those goals, including strategies involving IT. For example, strategies for achieving the goal of build a robust and flexible technology enterprise that is dedicated to the current and future needs of a modern copyright agency included employing sound policies for the acquisition and management of technology investments. Furthermore, the strategic plan noted that the Copyright Office is developing a detailed IT plan with the assistance of a consulting firm and will seek public comments on specific strategies, costs, and timelines for its technology objectives.

Implementing GAO's Recommendations Is Crucial to Improving IT Management

In our reports we made a number of recommendations to the Library of Congress and the Copyright Office aimed at improving the management of their IT resources.

For the Library, we recommended that the Librarian take a number of actions to address weaknesses in the six IT management areas, to include the following:

- Expediently hire a permanent CIO responsible for managing the Library's IT and ensure this official has clearly defined responsibilities and adequate authority, including (1) responsibility for commodity IT, (2) oversight of mission-specific systems, and (3) clearly defined responsibilities and authorities between the Library CIO and service unit IT leadership. This can help provide stable, consistent, and effective leadership for addressing the weaknesses we identified and improve the management of IT at the Library.
- Complete an IT strategic plan that addresses key elements, develop a complete and reliable enterprise architecture, and complete an assessment of IT human capital needs.
- Take steps to improve the Library's investment management process, including clarifying the responsibilities of the investment review board, improving the investment selection process, improving the investment

¹⁵Copyright Office, *Strategic Plan 2016-2020 Public Draft, Positioning the United States Copyright Office for the Future*. The Copyright Office intended to finalize the plan in December 2015, following a period of public comment.

oversight process, and ensuring complete and accurate data on IT investments and assets.

- Address weaknesses in the Library's IT acquisition efforts by establishing and implementing organization-wide policies for risk management, requirements development, cost estimation, and schedule estimation.
- Take steps to address weaknesses identified in the Library's information security and privacy programs, including its systems inventory, system security plans, security testing, remedial action plans, authorization process, contingency planning, security awareness training, contract management, and privacy impact assessments.¹⁶
- Improve the management of IT services by ensuring that service-level agreements appropriately cover all services and include service-level targets, documenting and executing a plan for improving satisfaction with IT services, and assessing the costs and benefits of consolidating potentially duplicative or overlapping IT activities across the organization.

In its comments on a draft of our report, the Library generally concurred with our recommendations, described ongoing and planned actions to address them, and provided milestones for completing these actions. For example, the Library stated that by September 2015 it would complete a skills assessment of IT staff throughout the Library, ensure its inventory of IT assets is up to date, and require appropriate service-level agreements between ITS and Library service units.

In November 2015, we discussed the implementation status of the recommendations with the newly appointed Library CIO, and he stated that the Library had taken steps toward addressing them. For example, the CIO released an IT strategy for fiscal year 2016 to provide guidance while the Library's IT strategic plan is being developed. Additionally, the CIO and Chief Financial Officer issued a memo requiring service units to track IT spending in the Library's financial accounting system. Further,

¹⁶In our limited-distribution June 2015 report on the Library's implementation of information security controls, we also made a number of recommendations aimed at remediating weaknesses we observed.

according to the acting Deputy CIO, the Library has completed an inventory of its IT hardware.

These efforts notwithstanding, as of November 2015, the Library has yet to fully implement any of our 31 recommendations, including those that were to be completed by the end of fiscal year 2015. For example, while the Library, consistent with our recommendation, hired a new permanent CIO, it remains to be seen whether he will be provided with clear responsibility and adequate authority for leading improvements in the management of the Library's IT. As it continues these efforts, it will be important for the Library to commit to milestones for implementing our recommendations and follow through on these commitments in order to make progress in improving its IT management.

For the Copyright Office, we recommended that it develop (1) more detailed plans for its proposed IT improvement initiatives and (2) an IT strategic plan with prioritized IT goals, measures, and timelines to guide its improvement efforts. In November 2015, Copyright officials provided us with plans that had been developed for three IT improvement initiatives proposed for funding in fiscal year 2017. These initiatives were for software and hardware upgrades, searchable historic copyright records, and a data management initiative. The plans for these three initiatives included key elements such as a business problem and proposed solution, expected benefits, alignment with the Library's strategic plan, and initial, 3-year cost estimates and funding sources. In addition, as noted above, the office recently developed a draft overall strategic plan, and it includes strategies to support the goal of improving the Copyright IT environment. This is an important step that should help provide direction for future IT initiatives.

In conclusion, effectively managing its IT resources is critical for the Library to carry out its mission of preserving and making available the knowledge and creative output of the American people, as well as ensuring the smooth operations of the nation's copyright system. Widespread weaknesses in IT management at the Library raised serious concerns about its ability to effectively carry out its responsibilities in a 21st century digital environment. In addition, dissatisfaction with services and support provided by the Library's central IT organization had led to other service units pursuing activities independently, potentially resulting in overlapping or duplicative activities. Implementing our recommendations will help ensure the Library is better positioned to effectively use technology to support its mission. The Library's recent appointment of a permanent CIO is a positive development; ensuring that this official has

the appropriate authority and responsibilities is key to addressing the many weaknesses we identified. For its part, the Copyright Office has taken steps—such as developing a draft strategic plan and detailed plans for new IT improvement initiatives—that can help lay the groundwork for a proactive approach to modernizing its IT environment.

Chairman Miller, Ranking Member Brady, and Members of the Committee, this concludes my prepared statement. I would be pleased to answer any questions you may have at this time.

Contact and Acknowledgments

If you or your staffs have any questions about this statement, please contact Joel C. Willemssen, Managing Director, Information Technology, at (202) 512-6253 or willemssenj@gao.gov. Other staff who contributed to this statement include Nick Marinos (assistant director), Torrey Hardee, Thomas Johnson, Kaelin Kuhn, Lee McCracken, Kathleen Sharkey, and Tina Torabi.

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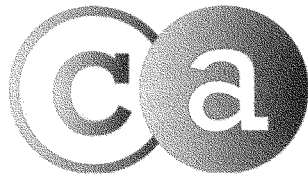


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The CHAIRMAN. Thank you.

Before I start my questions, I have been asked by the Copyright Alliance to enter in for the record and with a UC, if I could, a report that they have here, "Improving Customer Service for the Copyright Community." Without objection, I will enter that into the record.

[The information follows:]



copyright alliance

Connecting creators · Protecting creative work

Statement of

**Keith Kupferschmid
Chief Executive Officer
Copyright Alliance**

before the

House Administration Committee

on

**“Improving Customer Service for the Copyright
Community”**

December 2, 2015

The Copyright Alliance, on behalf of our membership, submits this statement for the record concerning your December 2, 2015 hearing on “Improving Customer Service for the Copyright Community”. The Copyright Alliance is a non-profit, public interest and educational organization that counts as its members over 15,000 individual creators and organizations across the spectrum of copyright disciplines. The Copyright Alliance represents the interests of authors, photographers, performers, artists, software developers, musicians, journalists, directors, songwriters, game designers and many other independent creators. The Alliance also represents the interests of book publishers, motion picture studios, software companies, music publishers, sound recording companies, sports leagues, broadcasters, unions, guilds, and newspaper and magazine publishers and many more organizations. What unites these individuals and organizations is their reliance on the copyright law to protect their freedom to pursue a livelihood and career based on creativity and innovation and to protect their investment in the creation and dissemination of copyrighted works for the public to enjoy. The copyright law is critical not only to their success and prosperity, but also the short and long-term success of the U.S. economy.

By submitting this testimony I hope to assist the Committee in better understanding the important role the U.S. Copyright Office—and in particular the Office’s IT system—plays in the creation and distribution of new creative works, the concerns we have relating to the Office’s operations, IT infrastructure, security, and budget, and the immediate need to take steps to modernize the Office.

Copyright is the foundation for a thriving and ever expanding market of cultural, educational, and scientific works, one that in 2013 contributed over 1.1 trillion dollars to the U.S. economy and directly employed nearly 5.5 million workers.¹ As the Office responsible for administering all matters relating to copyright, few other government offices are more important to the growth of creativity and commercial activity in our nation than the U.S. Copyright Office. Within the copyright ecosystem, the Copyright Office plays a pivotal role in the registration of creators’ works and the recordation of documents pertaining to those works. The ability of our Nation’s independent creators and the businesses that support their work to promptly register and record copyright interests with the Office, and of the public to obtain copyright information that enables them to license copyrighted works, creates new industries and spurs the economy, which, in turn, advances our global competitiveness and technological leadership.

In view of the ongoing and rapid changes in the information, entertainment, and technology sectors, the Copyright Office has never been more important than it is today in ensuring that copyright owners have access to critical services that support their artistic and economic endeavors, including the creation and dissemination of works to the public, and the development of innovative new business models by which to distribute such works. Furthermore, given the global and dynamic characteristics of the copyright ecosystem, the Copyright Office must be able to rapidly adapt to ensure it is able to offer the tools and resources that its stakeholders demand.

¹ STEPHEN SIWEK, COPYRIGHT INDUSTRIES IN THE U.S. ECONOMY: THE 2014 REPORT 2, 18 (IIPA 2014).

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Despite the critical nature of the services provided by the Office, and the substantial economic interests that underlie the need for those services, many of them have not kept pace with technology and the marketplace. While the Office has made valiant efforts to hear from stakeholders and improve its services (or develop new ones, as appropriate), the reality is that of the Office remains substantially behind the curve—deficiencies that are the result of many years of budgetary neglect and structural deficits that would make it difficult for any agency to merely keep pace, let alone modernize the agency.

As a department of the Library, the Office is obligated to use the Library’s Information Technology (IT) systems. The Copyright Office does not have its own IT infrastructure; it uses the network, servers, telecommunications, security and all other IT operations controlled and managed by the Library of Congress.

The Library’s information technology systems are antiquated. They are also incompatible and impractical in regard to the Office’s underlying objectives and mission. The Library IT system is meant to service a library and its associated functions, not an organization like the Copyright Office, which, by definition, has a very different mission from the Library and which is expected to provide services that affect the legal rights and economic interests of creators, owners, users and others who rely on the Copyright Act for their economic and creative well-being.

To make matters worse, the Office is also significantly underfunded and understaffed. Within the past several years especially, it is proving exceedingly difficult for the Copyright Office to provide timely and effective services to its constituents. Consequently, we think the time is ripe for Congress to evaluate the Office’s information technology needs, and other aspects of its operations affecting the delivery of services to its constituencies, to ensure that the Office has the resources and expertise necessary to serve authors, users, and the public for generations to come.

IT Concerns

Regardless of the ultimate administrative structure of the Copyright Office, it is of paramount importance that the Office has an advanced technology platform that supports the needs of its primary users: copyright owners and users of copyrighted works. The copyright community requires user-friendly registration and recordation systems and an easily searchable registration and recordation database.

There are a host of critical concerns we have relating to the LOC’s IT systems, the most significant of which include:

IT System Problems Result in a Backlog of Copyright Applications

Unless and until the Office’s IT problems are effectively addressed, the backlog of copyright applications will continue to grow. Applicants may become more disenchanted with the Office and many may begin to question (if they haven’t already done so) the value of copyright registration, in view of the time and resources required to register their works. This may result in the submission of fewer applications, which in turn will translate to fewer deposit

copies for the Copyright Office and thus fewer works for the Library of Congress' collections, and a less robust public record of copyright ownership.

The Library's Demands for Deposit Copies in Specific Formats Causes Friction with the Copyright Office and Copyright Registration Applicants

The deposit copy required by the Copyright Office serves numerous purposes. It is used by the Office in the examination process to determine whether the work meets the conditions of copyrightability and to certify the copyright record for interested parties, for example, as in the case of infringement litigation. These deposit copies also form the basis, in part, for the collection of the Library of Congress. Because the deposit copy is used by the Library for one purpose and by the Copyright Office for a completely different – and often competing – purpose, the Library and the Office are often at odds with one another over the type of deposit copy required, and use of that copy.² In fact, some copyright owners refuse to register their works with the Copyright Office because they have found the process to be too expensive and cumbersome, and because they are concerned about the security of their deposits.

For example, many newspapers are no longer registering their works with the Copyright Office because the Library requires that newspaper deposits be in microfilm format. As publishers and institutions move away from microfilm, the Library's continued and unreasonable demand for microfilm copies places an undue financial and administrative burden on newspaper copyright owners. The end result is that everyone loses – the Library gets nothing for its collection, the public may be missing valuable historical knowledge, and the resulting financial hardship precludes newspaper publishers from registering their newspapers, thus making it more difficult for them to take action against the online infringers.

The Functionality of the Copyright Office Registry is Severely Outmoded and Outdated

The Office's registration system and its companion recordation system constitute the world's largest database of copyrighted works and copyright ownership information. However, the functionality of the registry is drastically out of date relative to search and database technologies available today.

The present recordation process is also shockingly antiquated, cumbersome, and costly: It requires manual examination and manual data entry from paper documents – more or less the same as it was when the recordation system first launched in the 1870's. The recordation process is extremely time consuming, resource-intensive, and costly to the Office because all information, except for information included in the recordation cover sheet (which often is never filed), is entered manually (*i.e.*, keyed in) by Copyright Office staff regardless of whether the

² The Library of Congress regularly reviews the deposits submitted for copyright registration and then selects the deposits that it wants to include in its collection. The Copyright Office has no choice but to turn over its copy to the Library because under the statute the Library controls the Office. However, if the Library makes a selection and takes the Office's only copy, then the Office will be unable to satisfy its obligation to certify the copyright record in the case of copyright litigation. To date, the deposits the Library has selected have been primarily physical formats. Often, the Copyright Office and registrants would prefer to submit a digital deposit copy, but because the Library's collection needs require that the deposit be in a physical format, the Copyright Office requires the registrant to submit a physical copy. This is a major obstacle to the Copyright Office's efforts to make the registration process more efficient and less expensive for copyright owners.

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recordation materials submitted are in digital or print form. The process takes twelve to eighteen months for the Office to enter the data – largely because of antiquated technology. This is much too long.

As evidence that this is an IT system and not a staffing problem consider that “the Patent and Trademark Office recordation staff of 10 now processes over 480,000 patent and trademark assignments every year, while the Copyright Office’s staff of 12 processes about 11,000 documents per year – less than one-fortieth of the number of documents handled by the slightly smaller staff at the Patent and Trademark Office.”³ The copyright marketplace moves quickly and licensees, lawyers, and others need this information immediately to facilitate copyright transactions, enforce copyright interests, and generally engage in copyright-related business—not a year and a half later.

The Library’s Inability to Keep the Online Registration System Running Causes Numerous Problems

The problems the Library has had in keeping the Copyright Office systems running are well documented. During the federal government shutdown in the fall of 2013, the Library took its websites offline, including the Copyright Office’s online database of copyright ownership records, as well as its online registration application filing system, even though registrations must, by law, be date stamped upon receipt, for example, to grant standing to lawsuits or for remedies purposes.⁴ Unfortunately, this is not a standalone example. Earlier this fall, a scheduled power outage for routine maintenance of the Library’s power systems resulted in the electronic registration system being shut down for ten days, after the Library’s system administrators were unable to bring the system back online after power was restored.⁵

The failure to keep the online registration system up and running has caused significant disruptions that result in a substantial backlog of registrations and recordations, and further significantly expands the pendency time for issuing registrations. Having an autonomous system would allow the Copyright Office, rather than LOC IT administrators, to make decisions that impact copyright owners and users, and take into account the nature of the Office’s business in ways that the Library does not, and has traditionally been unwilling, to understand.

The Current Funding Structure Further Limits The Office’s Ability to Remedy its IT Issues, or Plan for Future Upgrades

The Copyright Office’s current funding structure contributes to the problems caused by the IT system, which prevent it from efficiently serving its constituencies. Among the challenges it faces are reductions in appropriated funding (appropriations that must be approved by Library, rather than being dedicated specifically or exclusively to Copyright Office functions, with

³ See Transforming Document Recordation at the United States Copyright Office at p. 56 (Dec. 2014) <http://copyright.gov/docs/recordation/recordation-report.pdf>.

⁴ 17 U.S.C. §§ 411, 412.

⁵ Peggy McGlone, *Copyright Office’s Online Registration Hasn’t Work for Almost a Week*, WASH POST, Sept. 3, 2015, available at https://www.washingtonpost.com/lifestyle/style/copyright-offices-online-registration-hasnt-worked-for-almost-a-week/2015/09/03/b12781e2-5261-11e5-9812-92d5948a40f8_story.html; Whitney Blair Wychoff, *Copyright Registration System Back Online*, FEDSCOOP (Sept. 8, 2015, 10:30 AM), <http://fedscoop.com/copyright-registration-system-back-online>.

decisions made by the Copyright Office).⁶ This has resulted in budget shortfalls to critical Copyright Office functions. With a current budget of just \$47.5 million (\$27.9 million of which is simply an authorization to spend fees the Office collects,⁷ and \$19.6 in appropriated funding), the Copyright Office's resources are stretched thin. Despite growth in the copyright industries, the Office's budget has actually *decreased* by \$1 million (2%) since 2010,⁸ and budgetary offsets put in place by Congress that require the Office to tap into its reserve fund often leave the Office without an operating cushion.

The required strict adherence to a cost-recovery model means that the Office may not use the money it collects from user fees for capital improvements or other investments, such as new IT systems. That seems to be a moot point in any event as fee collections in recent years have regularly fallen below the Office's spending authority, highlighting the fact that because registration is not compulsory under the Copyright Act, the Office must work to ensure that the process is relatively easy, to encourage authors—especially smaller companies and independent creators—to register their works. The burden of supporting an IT overhaul, though, should not rest exclusively on those registering works or recording documents, since the Copyright Office serves both copyright owners and users of copyrighted works. Moreover, by increasing costs of registration or recordings, particularly to small and medium enterprises, or to those whose creative enterprises generate a large volume of individually copyrighted works rather than a smaller volume of relatively high value works, the purposes of the registration system may be undermined, and registrations and recordings might decrease, harming the amount, reliability and overall usefulness of data in the databases for registrations and recorded documents.

RECOMMENDATIONS

Within the context of the subject matter of this hearing, the Copyright Alliance offers the following several recommendations to help strengthen the performance of the Copyright Office's IT infrastructure that we believe will ensure the successful future operation of the Copyright Office.

Provide the Copyright Office its Own Dedicated IT System

The digital content marketplace is increasingly dynamic and requires a Copyright Office with flexible systems that can rapidly accommodate market changes.⁹ The IT systems of the Copyright Office are intertwined with those of the broader LOC, and resolving the various issues presented by their different missions is a significant problem that seems to be getting worse. The two offices each have their own unique IT requirements, which can lead to strains on resources and therefore impediments for the Copyright Office's users.

⁶ See USCO Strategic Plan at 58-9.

⁷ LIBRARY OF CONGRESS, LIBRARY OF CONGRESS FISCAL 2016 BUDGET JUSTIFICATION 107 (2015), available at <https://www.loc.gov/portals/static/about/reports-and-budgets/pdf/fy2016.pdf>. This reflects the Copyright Basic portion of the total Copyright Office budget and FTE usage/ceiling. Excluded are FTE usage, ceiling, and budget for the Copyright Office's Licensing Division and Copyright Royalty Board.

⁸ LIBRARY OF CONGRESS, LIBRARY OF CONGRESS FISCAL 2011 BUDGET JUSTIFICATION 125 (2010) (noting the 2010 basic budget for the Copyright Office was \$48.5 million), available at <http://loc.gov/portals/static/about/reports-and-budgets/pdf/fy2011.pdf>.

⁹ For example, many copyrightable works are born digital and should be easily registered in that format.

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The Office needs a more advanced IT infrastructure – one that is specifically dedicated to the Office and can better support the needs of its users. Its customers need a more user-friendly registration and recordation system that is quickly adaptable to changes in the copyright marketplace and easily searchable across numerous data fields.

Improve the Security of the Copyright Office Database of Copyrighted Works

One essential improvement from developing a dedicated IT system for the Copyright Office would be to enhance its security for digital works that are deposited as a part of the registration process. As more and more content is distributed only in digital form, copyright owners send digital deposit copies, increasing concerns about the security of the Office’s database of copyright deposits. A digital copy of a work leaked from the Copyright Office would be virtually indistinguishable from a commercially available copy, potentially displacing the market for the latter, and dramatically reducing the market value of the work.

The Copyright Office has acknowledged the security issues in its just released report on *Technological Upgrades to Registration and Recordation*,¹⁰ which stated that “the Copyright Office cannot provide 100% assurance that a deposit submitted by a copyright owner has not been modified. Nor can it ensure that the deposit has been archived in a manner that is consistent with the requirements of the copyright law.... In a worst-case scenario...the Office would have no knowledge as to whether deposits are being accessed, deleted, removed, or appropriated.” These statements are understandably troubling to copyright owners who register their works with the Office.

Improve the Efficiency and Functionality of the Registration and Recordation Systems

The efficiency and functionality of the registration and recordation systems must improve. The Copyright Office provided a number of recommendations in its 2015 report on technical upgrades that are worth examining in this regard.¹¹ In particular, we recommend that the Copyright Office improve the search function for its records and registrations, including an acceleration of the importing of data during registration and recordations, as well as improvements and expansions in the data to be included in the database. Moreover, the database could be further enhanced by allowing the voluntary linking of external databases to the Copyright Office’s systems, with the caveat that any external data meet quality thresholds established by the Copyright Office.

It is also essential that the Office reengineer the recordation process to make historic records available, and to build a comprehensive, publicly accessible database of copyright ownership transactions that is easily searchable, user-friendly, and provides a modern user experience. It must become easier and less costly for ownership and other documents to be recorded with the Office and the Office must improve the efficiency and speed of the recordation process, as well as making it easier to search and retrieve documents from the Office’s recordation database.

¹⁰ U.S. COPYRIGHT OFFICE, REPORT AND RECOMMENDATION OF THE TECHNICAL UPGRADES SPECIAL PROJECT TEAM 77 (2015).

¹¹ *Id.*

It is also crucial that the information that the Office collects as part of its registration and recordation systems be more easily accessible, current and searchable by the public through the Copyright Office website. New digital technologies have dramatically quickened the pace of commercial transactions involving copyrighted works. Parties to these transactions require access to copyright information at a commensurate speed. Anything less, may slow the pace of commercial innovation and the copyright marketplace. It is, therefore, critical that the Copyright Office make the most current registration and recordation information available on its site.

The Office has been making progress toward these goals, but progress has been slow, and it will continue to be slow so long as the Copyright Office continues to be encumbered by the IT, budgetary, and other limitations imposed by the Library of Congress.

Improved Reliability of the IT System

When undergoing IT improvements, we also recommend the Copyright Office improve the reliability and functionality of its systems. We realize that some of the functions, instability, and user experience challenges with its systems can be attributed to the previously discussed relationship between the Copyright Office's IT platforms and the Library, when there should be an independent Copyright Office IT system, and decisions about the system should be made independently, based on the unique needs of the copyright community.

Increase the Copyright Office's Funding

Congress should increase the Copyright Office's funding to enable the Office to make immediate critical improvements to operations and IT.¹² To fully modernize, the Copyright Office will require an infusion of new technologies—needs that come with a big price tag. Although the costs of implementing new functionalities and improvements in the Office will be significant expenditure at the outset, these costs will be offset in the long run by the cost savings generated by new efficiencies and streamlined workflows, and by revenue that the Office might generate from use of its new services and increased information availability. When one considers the importance of the copyright industries to the U.S. economy, increasing the Office's appropriations for modernization purposes is certainly justified.

The Office also needs more flexibility in its legal spending authority. The Office should have the ability to build a reserve account from the fees collected so it has the necessary funds to draw from to make capital and other improvements in different budget cycles, including during periods when incoming fee receipts are down.

¹² Although the Copyright Office resides within the Library of Congress, it receives a separate appropriation. The budget for the Copyright Office is exceedingly small, given the amount and complexity of its responsibilities. In fiscal year 2015, the Office had an overall budget of only \$47.5 million. Over one-half of the Copyright Office's budget (approximately \$27.9 million) came from user fees for registration, recordation, and other public services. The rest (about \$19.6 million) came from appropriated dollars.

CONCLUSION

It is clear that many of the Copyright Office’s struggles to administer the copyright law result from its subservient position within the Library of Congress. Many of the technical IT constraints and inadequacies, as well as the budgetary limitations and restrictions stem from requirements or restraints placed on the Copyright Office by the Library of Congress. It is highly unlikely that these operational problems can be resolved in the near future so long as the Copyright Office continues to operate under the supervision and direction of the Library of Congress.

The best chance to effectuate real timely improvements is to grant the Copyright Office the same type of autonomy that Congress has granted to another department within the Library – the Congressional Research Service (CRS). Unlike the Copyright Office, the Library has no authority to supervise or direct the activities of CRS. To the contrary, the Library is statutorily required to “encourage, assist, and promote” the CRS’s activities “in every possible way.”¹³ This type of autonomy is what allows CRS to provide Congress with analysis that is authoritative, confidential, objective and nonpartisan, while also maintaining its independence from the Librarian of Congress. By giving the Copyright Office more autonomy and the Library less control over the Office, many of the operational issues previously identified could be resolved.

There needs to be wholesale changes in the structure and operations of the U.S. Copyright Office and those changes need to take place immediately. The services provided by the Copyright Office are critical to the U.S. economy. The money and time spent today investing in an efficient and user-friendly Copyright Office will result in substantial benefits in the future for the U.S. economy, and of course, the U.S. Copyright Office itself.

We look forward to working with the Committee and other stakeholders as this issue is considered by the Committee.

Thank you,

Keith Kupferschmid
Chief Executive Officer
Copyright Alliance

¹³ 2 U.S.C. § 166(b).

The CHAIRMAN. Certainly, listening to Mr. Willemssen articulate a number of the recommendations that were in the GAO report is eye opening, and I guess let's just start with that.

If I could ask Mr. Mao, here you have 31 recommendations, which he didn't go through all of them, but really, apparently none of them have been implemented yet, even though the Library did say that they were going to start some of them in September of this year, which has not happened. I do know that you have hired a CIO, but I don't think you have strategically outlined all the various areas for how that is all going to work. So perhaps you could just tell us. I am sure you have read the report and dissected it, and I am hopeful that you can tell us how you would be prioritizing all of these various recommendations that they have made to you.

Mr. MAO. Thank you, yes. And we have taken the 31 recommendations, and by our account some of them are completed. We are working right now with the GAO audit team to get validation from them that they are indeed completed. We have met with them regularly to discuss them and will continue to meet with them regularly going forward to ensure that all of the 31 recommendations are completed. We have a schedule that will allow us to complete the 31 recommendations hopefully by 2018.

The CHAIRMAN. Is that something you can share with the Committee?

Mr. MAO. The schedule?

The CHAIRMAN. Yes.

Mr. MAO. Certainly, we can. I am happy to provide it.

The CHAIRMAN. Okay, could you just tell us what is your top priority, one, two, three, perhaps?

Mr. MAO. Well, the top priorities were identified earlier, and one of them, of course, the number one priority was hiring a permanent CIO, which we do have on board. And I understand Mr. Willemssen's comment that, you know, it remains to be seen whether the hiring of this permanent CIO will completely close out that recommendation. But he has started just in September and I think we have made good progress with him in the last 2 months. And I look forward to proving to the GAO that we can close out that particular recommendation.

And in addition, we have created an IT strategic plan that was identified in the GAO report. That is in its final stages right now to be shared with the Executive Committee very shortly and we hope to have that released by the end of this month.

We are also implementing processes and procedures for IT investment strategies going forward to make sure that all of the information we collect and all of the information is shared transparently across the entire Library and also that information submitted by all of the units for their needs are considered, and that process was just recently started.

For our preparation for the fiscal 2017 budget cycle, we considered new and expanded program requests from all of the units and we walked through the process as we have identified. And certainly, our regulations and internal guidelines will be modified to reflect all of these processes that we are putting into place.

The CHAIRMAN. I appreciate that.

Mr. Willemssen, as you heard that, maybe you are already familiar with that list of priorities. What is your thought about those priorities, or should they be looking at other priorities? What do you think?

Mr. WILLEMSSEN. I agree with the Acting Librarian on the first priority, appointing a CIO. The next step is making sure that the CIO has adequate responsibility and authority to carry out the mission. That is what we will be looking for over the next couple months, in addition to seeing that the CIO has oversight over mission-critical systems and takes more of a leading role on what we refer to as commodity IT—back office systems, financial management, human resources, email, laptops, cell phones, et cetera. We would like to see more of an active role there.

The other critical things that we think from an immediacy standpoint that need to be addressed are one, you need to get a clear inventory on exactly where your assets are located. The Library has made a lot of progress on that, and are doing some reconciliation of the data now. One of the reasons this is important is that you have to know where your access points are from an information security standpoint so that you can protect your systems and your data.

Secondly, the Library needs to get a handle on IT spending, and they are in the process of doing that. So it is not to say they haven't made any progress. They have made tremendous progress. However, they are not quite there yet.

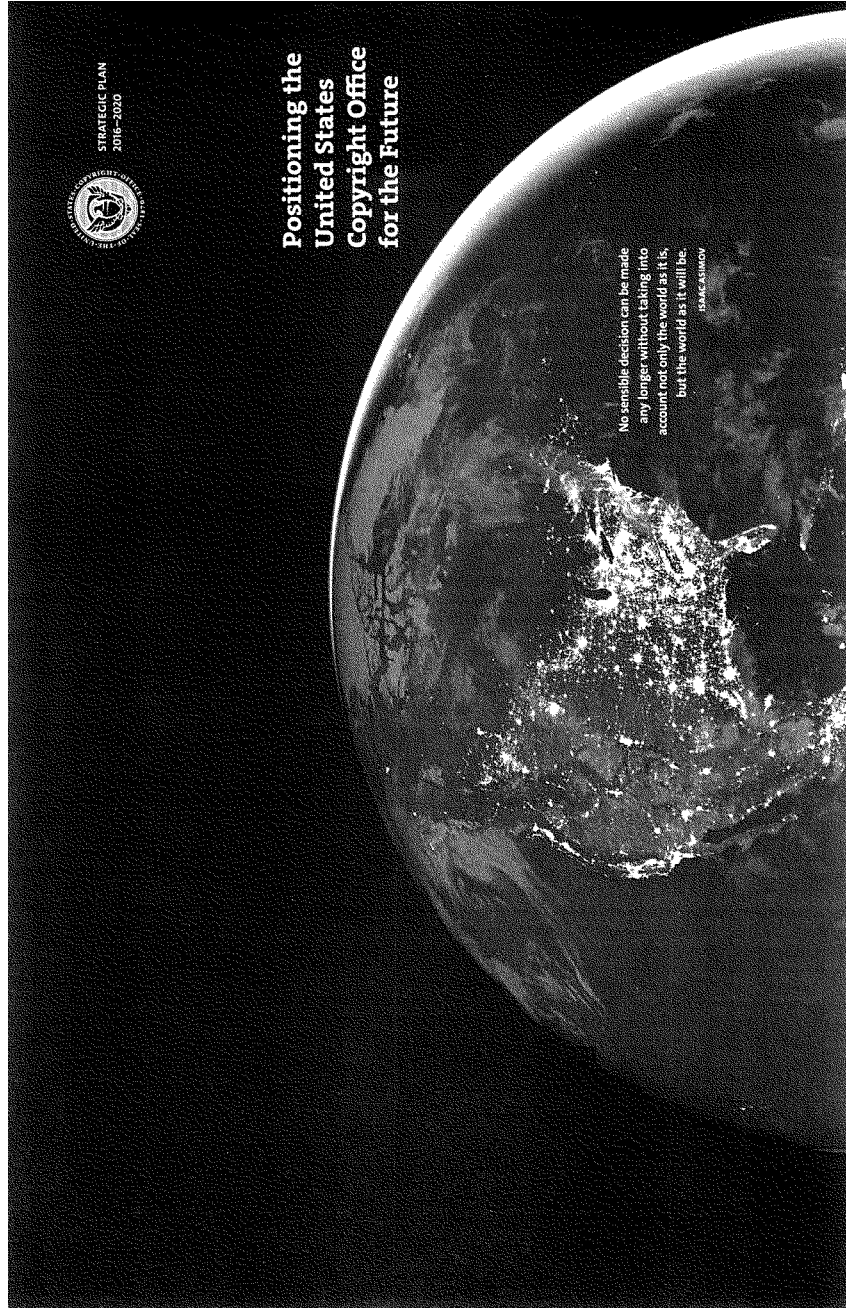
There are also some information security weaknesses from a patching and perimeter control perspective that they need to focus on addressing. The Library has probably made the most progress in the information security area. You may know we also issued a not-for-public-release in-depth security report that had 74 recommendations. The Library has already made progress on many of those recommendations.

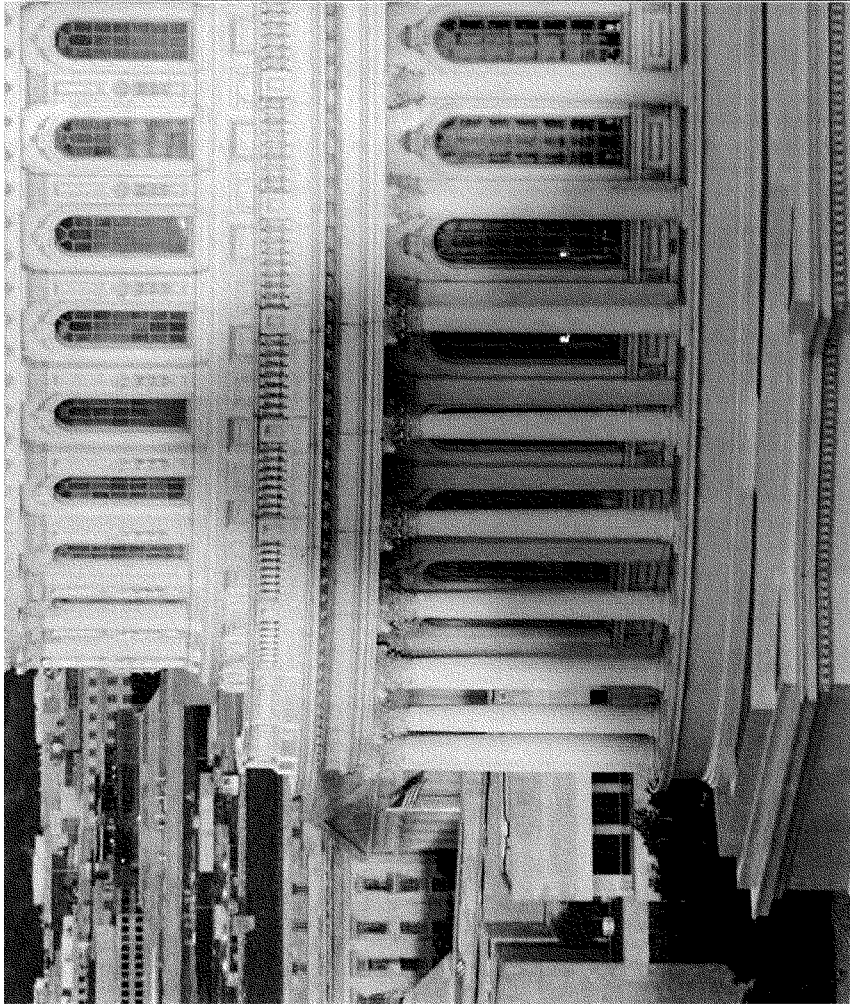
The CHAIRMAN. Very good. Well, I am delighted hearing that you are making that kind of progress and that you look at the GAO report as an opportunity for help, and a tool of assistance, not in an adversarial way. Sometimes, when people are critical of our nest, we have a tendency to see that as an adversarial kind of thing, but we shouldn't look at it that way. Audits, and GAO in particular, can be extremely helpful for every agency.

Ms. Pallante, you and I had an opportunity to chat on the phone for quite a while yesterday about various things that are happening in your agency, and I mentioned to you that in my former life as a Michigan secretary of state where we had jurisdiction over the DMV as well, I had the largest agency, I guess, in State government at that time, but we always said that customer service was the operative phrase for everything that we were trying to do. I know that is so in your department as well.

Talking about eCO—I know that is how it is pronounced, I don't know exactly what it is, E something— but that is an ability for your customers to file online, right? Maybe you could talk about that a little bit. What is that? Is it particularly helpful? You mentioned about the customer experiences, so on and so forth. You also said that you just released this report yesterday. So, I mean, I have

not had time to even—I am just looking at it right now. Anyway, we will enter it into the record, without objection.
[The information follows:]





STRATEGIC PLAN
2016-2020

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STATEMENT OF THE REGISTER



The U.S. Copyright Office supports a vibrant marketplace of creativity and innovation that, in recent years, has been worth trillions of dollars to the global economy and immeasurable value to society at large. The Office has always served the public with distinction, but there is no question that it must now modernize to meet current and future needs. Indeed, how to modernize the Copyright Office is part of a larger public discussion regarding when and how we should update our copyright laws. I am grateful to Congress for its ongoing leadership on these issues, and to everyone who has enriched the debate with insight and expertise.

This Strategic Plan organizes and prioritizes objectives for the next five years. It draws on four years of internal evaluations and public input — that is, two initial years of fact-finding, public inquiries, and special projects, and two additional years of public roundtables, reports, and Congressional hearings. These initiatives, announced in October 2011, coincided with government-mandated budget cuts as well as staff reductions and backlogs. We seized these challenges, however, as an opportunity to examine inefficiencies, dismantle dated practices, and propose new paradigms. Much of this exciting work and our accomplishments to date are described in the back of this Plan. We also introduce here a revised mission statement that better captures our statutory mandate.

Here is my vision for a modern Copyright Office:

Customers should be able to transact with the Office easily, quickly, and from anywhere at any time, using mobile technologies and any number of consumer-friendly platforms and devices to secure rights or access data. They should have at their fingertips an integrated life-cycle of copyright information — not only the date on which a work was created, published or fell into the public domain, but also all of the authors, owners, licensees, derivative uses, rights, and permission information that are both relevant to the marketplace and invaluable to meaningful research. The Office should have business-to-business capabilities that both leverage and support private sector activities, while ensuring and facilitating transparency and fairness.

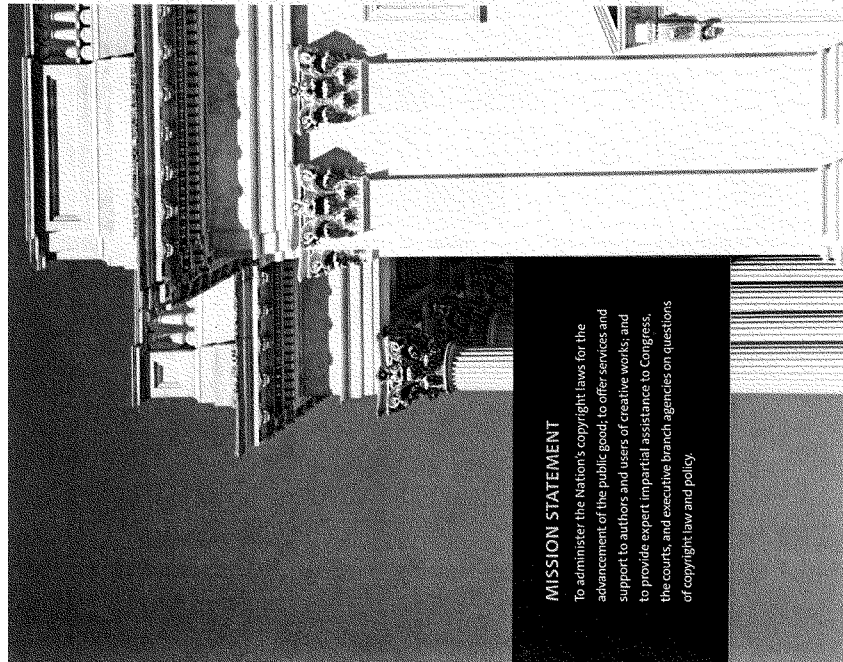
Although technology improvements are an essential part of the future, true modernization involves much more than making incremental upgrades to hardware or software. It requires re-envisioning almost all of the Copyright Office's services, including how customers register claims, submit deposits, record documents, share data, and access expert resources, and it requires meeting the diverse needs of individual authors, entrepreneurs, the user community, and the general public.

The legal structure of the Copyright Office, including its relationship to the Library of Congress, is also a modernization question: it affects how investments will be decided and managed, and, more generally, who will lead the copyright system and with what measure of accountability. We have not addressed these issues here, as Congress continues to explore the most appropriate ways to move forward. Moreover, while the Strategic Plan establishes numerous specific performance objectives, some of these will require further public input, statutory adjustments or both. In this end, we will invite public comments on several implementation details in the months ahead, including with respect to information technology plans and funding.

In positioning the Copyright Office for the future, we know this: it must be lean, nimble, results-driven, and future-focused. At a time when there is an exponential increase in the ways we can create, distribute, and consume copyrighted works, neither the Copyright Office nor the copyright laws can stand still. This Strategic Plan is not a magic bullet for the future, but it is transparent, flexible, and innovative. If implemented, it will transform the Copyright Office. It will move us from a 1970s department to a model for twenty-first century government.

In closing, I want to thank my staff, which is both talented and dedicated, and everyone who participated in the deliberative processes that have led us to this stage. The goals of the Copyright Office are your goals, and the future is both possible and exciting.

Maria A. Pallante
United States Register of Copyrights,
Director, U.S. Copyright Office



MISSION STATEMENT

To administer the Nation's copyright laws for the advancement of the public good; to offer services and support to authors and users of creative works; and to provide expert impartial assistance to Congress, the courts, and executive branch agencies on questions of copyright law and policy.

ABOUT THE UNITED STATES COPYRIGHT OFFICE

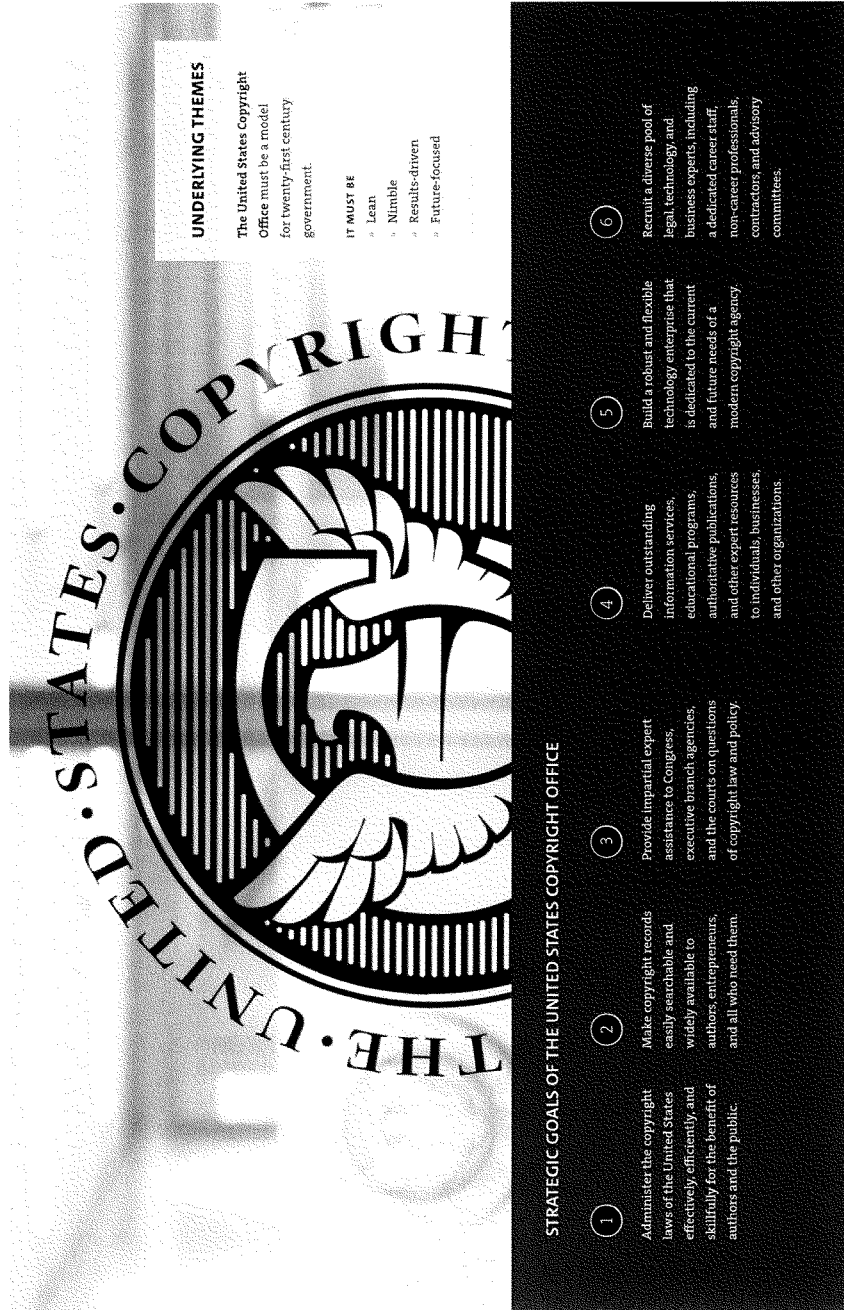
The U.S. Copyright Office, directed by the Register of Copyrights, is responsible for administering the Nation's copyright laws. The Register's many duties are prescribed in, and governed by, the Copyright Act and related chapters of Title 17, and include a number of public services as well as extensive legal and policy portfolios. The Register and her staff are impartial advisors to the United States Congress and support the significant international work of the United States Government. Among other departments, the Register works closely with the Departments of Justice, Commerce, and State; the Office of the United States Trade Representative; and the Office of the U.S. Intellectual Property Enforcement Coordinator.

The work of the Copyright Office is governed by public equities and the rule of law, reflecting the balanced copyright regime envisioned by Congress. Thus, its services support the exclusive rights, remedies, and remunerations that are afforded authors under the law, and which are essential for publishers, producers, and other entrepreneurs who invest in and bring these works to market. At the same time, the Office has long supported and facilitated exceptions, limitations, statutory licenses, safe harbors, and other flexibilities that provide safeguards for the public and bring efficiencies to the copyright system.

The Copyright Office's staff has wide-ranging expertise in all facets of domestic and international copyright law, including the Copyright Act and related provisions of Title 17, foreign copyright laws, international copyright treaties, and trade

agreements. Among other responsibilities, Office staff are trained to examine copyright claims and documentation related to a broad range of creative output; register copyright interests; administer deposit requirements; certify copyright ownership; record transfers, assignments, licenses, and other copyright transactions; and maintain authoritative records regarding the scope, date, and origin of creative expression. The Office administers regulations, practices, and programs that implement and explain the complex provisions of the law. The Office also ensures the efficient and accurate administration of compulsory licenses, including through legal review of royalty rate and distribution proceedings.

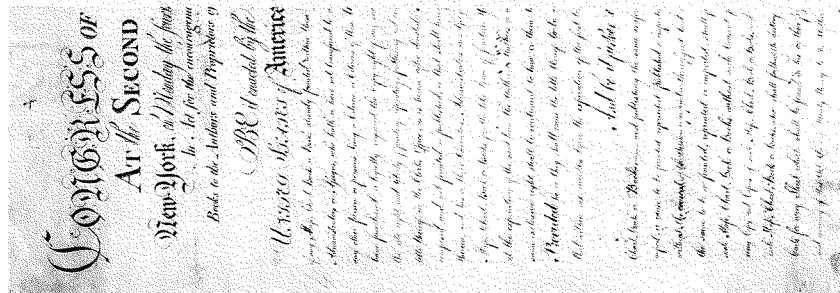
In accordance with the Copyright Act, the Register is appointed by, and works under the general direction and supervision of, the Librarian of Congress. The Librarian, who is appointed by the President and confirmed by the Senate, approves all copyright regulations formulated by the Register's expert staff and performs any specific copyright duties that constitutionally must be fulfilled by a principal officer and an agency head — for example, appointing and supervising the Copyright Royalty Judges and adopting the final rules under Section 1201 regarding exemptions to prohibitions on technology measures that protect copyrighted works.



1

Administer the copyright laws of the United States effectively, efficiently, and skillfully for the benefit of authors and the public.





ADMINISTER THE COPYRIGHT LAWS OF THE UNITED STATES EFFECTIVELY, EFFICIENTLY, AND SKILLFULLY FOR THE BENEFIT OF AUTHORS AND THE PUBLIC.

PERFORMANCE OBJECTIVES

THE OFFICE WILL ADMINISTER A MODERN SYSTEM FOR REGISTERING COPYRIGHT INTERESTS IN ORIGINAL WORKS OF AUTHORSHIP.

Establish new and updated practices to examine, register, and accurately document complex or emerging areas of authorship.

- Assess special issues relating to registration and deposit protocols for emerging forms of digital dissemination of works across the spectrum of creative industries, including software, photography and images, publishing, motion pictures, video games, and music.
- Identify and make appropriate changes to Office policy and procedures in response to statutory changes, judicial opinions, and emerging business standards.
- Undertake new rulemakings, as appropriate, in accordance with these duties.

Decrease pendency times for examining applications and issuing registrations or refusals.

THE OFFICE WILL ADMINISTER A MODERN SYSTEM FOR RECORDING COMMERCIAL AND NONCOMMERCIAL COPYRIGHT DOCUMENTS.

Distill completed policy studies, technology reports, and public comments into a comprehensive business analysis and public proposal for a more efficient and useful recordation system.

- Translate final business analysis into technical requirements, capital investment estimates, and an implementation plan.
- Convene industry working groups and advisors to ensure ongoing improvements and maximum benefit to marketplace initiatives.

- Modernize Office policies and practices to ensure clarity and reflect evolving issues.
- Examine issues related to electronic signatures, commercially sensitive or redacted materials, personally identifiable information, and standards and timing of agency review.
 - Update Office practices for recording commercial instruments, termination notices, and documents related to the term of protection.
 - Undertake new rulemakings, as appropriate, in accordance with these duties.

THE STATUTORY COPYRIGHT LICENSES WILL BE EFFICIENTLY AND ACCURATELY ADMINISTERED, INCLUDING THE LEGAL REVIEW OF ROYALTY RATE AND DISTRIBUTION PROCEEDINGS.

Review and update regulations to facilitate more streamlined processes and publish a new chapter on the Licensing Division in the *Compendium of U.S. Copyright Office Practices, Third Edition*.

Develop online filing capabilities and promote more efficient accounting practices under statutory licenses.

THE LEGAL REQUIREMENTS, EXEMPTIONS, AND PRACTICES FOR MANDATORY DEPOSIT OF PUBLISHED WORKS WILL BE BALANCED AND EFFECTIVE.

Work with Library of Congress acquisition experts to identify works and formats that are of interest and value to the national library collection.

- Critically examine the statutory, regulatory, and practical scope of mandatory deposit rules.
- Analyze possible revisions to best edition requirements, demand for disseminated or unpublished formats, and preservation needs, incorporating public input.
 - Evaluate issues relating to the security, terms, and conditions under which deposited works are made part of the Library's holdings and may be made available to the public.



AN EVOLVING COPYRIGHT SYSTEM WILL ADDRESS NEW STATUTORY ASSIGNMENTS, REGULATORY PRIORITIES, AND STRATEGIC GOALS AS NECESSARY OR DESIRABLE.

Accept such new assignments, authorities, and responsibilities from Congress as it deems appropriate.

Advance discussions regarding challenges and solutions to making copyright administration more efficient.

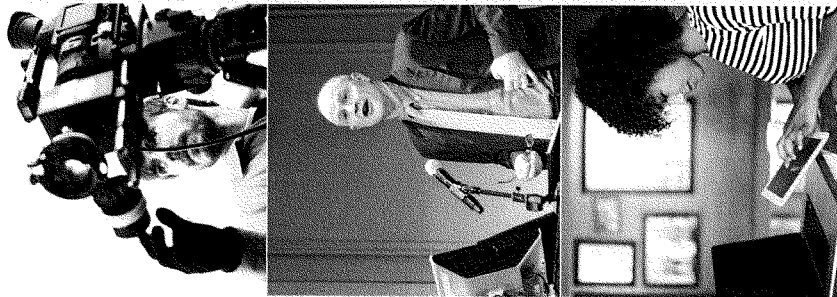
The Copyright Office will prioritize objectives according to funding and staffing and announce opportunities for public participation.



2

Make copyright records easily searchable and widely available to authors, entrepreneurs, and all who need them.





Copyright Office records are essential to both copyright owners and those who wish to license or otherwise use their works. Records document such things as the scope of copyright, ownership, transactions, security interests, bequests of intellectual property, and the term or expiration of protection. This information can fuel any number of innovative business models if captured and organized properly and provided in a timely manner. Records also carry certain benefits and presumptions under the law.

MAKE COPYRIGHT RECORDS EASILY SEARCHABLE AND WIDELY AVAILABLE TO AUTHORS, ENTREPRENEURS, AND ALL WHO NEED THEM.

PERFORMANCE OBJECTIVES

REGISTRATIONS, LICENSES, AND OTHER COPYRIGHT RECORDS WILL BECOME MORE ACCESSIBLE AND USEABLE TO THE GLOBAL PUBLIC.

Work with creative industries to formalize accepted metadata standards and increase use of unique identifiers in copyright records.

Advance use of innovative third-party tools, software programs, registries, and other business models that are interoperable with the Office's records and underlying data.

Expand the number of records integrated into the online database of contemporary records.

THE PUBLIC WILL BE ABLE TO VIEW RECORDS THAT FORM THE LIFE-CYCLE OF A COPYRIGHT INTEREST IN A MORE COHESIVE AND COMPREHENSIVE FASHION.

Adopt business strategies to facilitate integration of Office registration and recordation documentation to present a more comprehensive chain of title and useful master record for works.

Employ a robust public records search engine that allows such features as faceted searching, saved searches, and unlimited results.



PRE-1978 COPYRIGHT RECORDS WILL BE AVAILABLE ONLINE.

Complete digitization of physical copyright records and archived copyright documents.
Make records and documents searchable.

BUSINESS-TO-BUSINESS SERVICES OFFERED BY THE OFFICE WILL SHARE DATA AND CONNECT PUBLIC AND PRIVATE COPYRIGHT RECORDS.

Work with businesses to develop and offer new business-to-business services.
Begin to incorporate industry records into Office databases or interlink Office records with third-party registries and databases to expand the usefulness of Office records.

CUSTOMER SERVICES OFFERED BY THE OFFICE WILL INCLUDE COMPREHENSIVE SEARCH REPORTS AND TIMELY INSPECTION.

Improve tracking capabilities to locate records and deposits on site and off site.
Realign staffing and work processes to meet customer deadlines and other needs.

The Copyright Office will invite stakeholders to participate in prototypes and related strategies for records.



3

Provide impartial expert assistance to Congress, executive branch agencies, and the courts on questions of copyright law and policy.



The Copyright Office has deep expertise in all facets of domestic copyright law and policy, as well as foreign copyright laws, international copyright treaties, and trade agreements. Experts in the Office regularly interpret the law as enacted by Congress, and provide nuanced assistance across the government regarding complex or emerging areas of policy. The Copyright Office has provided impartial advice to Congress for 150 years.



PROVIDE IMPARTIAL EXPERT ASSISTANCE TO CONGRESS, EXECUTIVE BRANCH AGENCIES, AND THE COURTS ON QUESTIONS OF COPYRIGHT LAW AND POLICY.

PERFORMANCE OBJECTIVES

THE OFFICE WILL WORK CLOSELY WITH MEMBERS OF CONGRESS REGARDING INTERPRETATION OF THE COPYRIGHT ACT AND DOMESTIC AND INTERNATIONAL POLICY ISSUES.

Provide ongoing advice regarding new or emerging areas of copyright policy.

Prepare expert policy studies and recommendations for the benefit of the public.

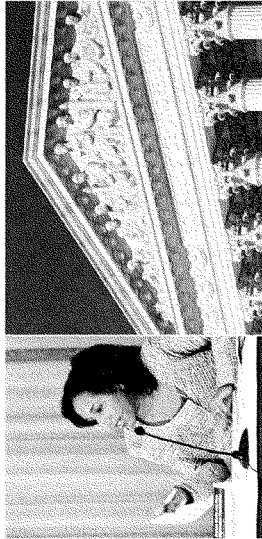
Engage in and lead public conversations on legal and practical aspects of copyright law.

THE OFFICE WILL PROVIDE SUPPORT TO EXECUTIVE BRANCH AGENCIES REGARDING THE INTERPRETATION OF NATIONAL COPYRIGHT LAWS AND THE TRADE AND TREATY OBLIGATIONS OF THE UNITED STATES.

Participate in and advise official United States Government delegations.

Ensure appropriate attendance at international copyright meetings and negotiations.

Provide timely assistance and subject matter expertise to agencies and public officials, including in relation to litigation and intergovernmental negotiations.

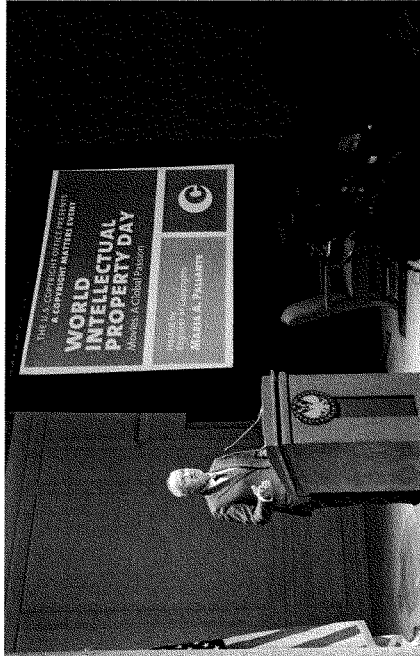


THE OFFICE WILL PROVIDE SUPPORT TO THE COURTS REGARDING THE INTERPRETATION OF THE COPYRIGHT ACT AND OTHER PROVISIONS OF TITLE 17.

Provide timely and expert advice to courts in registration-related matters and other cases.

Maintain an up-to-date Compendium of U.S. Copyright Office Practices to assist courts with understanding the Office's practices and reasoning.

The Copyright Office will seek public comments on studies and rulemakings as they are conducted.



4

Deliver outstanding information services, educational programs, authoritative publications, and other expert resources to individuals, businesses, and other organizations.



The Copyright Office maintains a public hotline, offers educational programs, and maintains critical authoritative publications including a dynamic website, the *Compendium of U.S. Copyright Office Practices*, agency testimony, rulemakings and public comments. As copyright law becomes more complex and more ubiquitous in modern life, the Office will need to expand these critical support services.

DELIVER OUTSTANDING INFORMATION SERVICES, EDUCATIONAL PROGRAMS, AUTHORITATIVE PUBLICATIONS, AND OTHER EXPERT RESOURCES TO INDIVIDUALS, BUSINESSES, AND OTHER ORGANIZATIONS.

PERFORMANCE OBJECTIVES

SUPPORT SERVICES FOR CUSTOMERS WILL EXPAND AND IMPROVE.

Improve the web interface to make registration and recordation filings more intuitive and more customized **for applicants**.

Improve customer support across time zones.

Utilize multimedia, interactive, and other digital tools to assist customers with forms and filings.

Improve participation of stakeholders in **Office meetings, programs, rulemakings, and other public proceedings** by exploring the possibility of satellite office space in strategic regions of the United States.

A STATE-OF-THE-ART WEBSITE WILL OFFER DYNAMIC CONTENT.

Renovate the underlying architecture of *copyright.gov*.

Improve the organization and accessibility of the Office's publications and authoritative materials.

Invest in web capabilities that support swift and secure transactions.

Improve web interface for filing public comments and participation in public processes.



EDUCATIONAL PROGRAMMING REGARDING COPYRIGHT ISSUES WILL REACH A WIDER NATIONAL AND INTERNATIONAL AUDIENCE.

Expand existing training programs such as Copyright Academy courses and public seminars.

Create new educational initiatives for authors, schools, libraries, other organizations, and businesses.

Conduct enhanced programs for domestic and international audiences, building on existing initiatives such as Copyright Matters and the International Copyright Institute.

THE OFFICE WILL PUBLISH AND DISSEMINATE EXPERT RESOURCES FOR THE USE OF AUTHORS, COPYRIGHT OWNERS, AND THE PUBLIC.

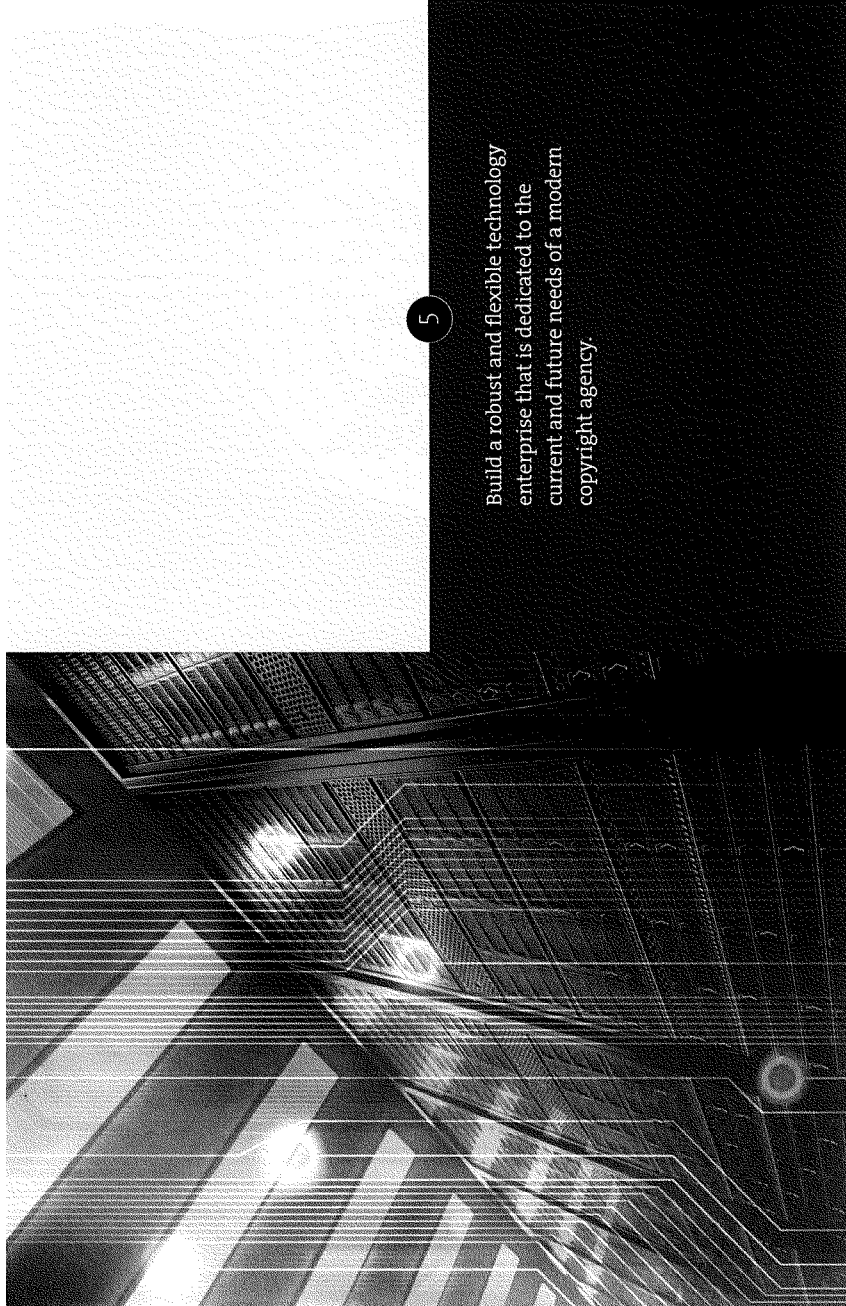
Prepare and publish authoritative revisions to the *Compendium of U.S. Copyright Office Practices, Third Edition*, the Fair Use Index, and other resources.

Improve web materials, newsletters, and other aids regarding copyright law and Office practices.

Expand the use of social media and audio-visual tools to reach more members of the public regarding the activities of the Office and issues of public interest.

Add new resources regarding copyright law and legislative history.

The Copyright Office will invite stakeholder input on website improvements.

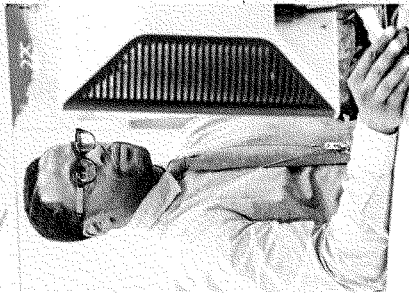


5

Build a robust and flexible technology
enterprise that is dedicated to the
current and future needs of a modern
copyright agency.



A robust, responsive, and highly secure enterprise architecture will be the backbone of a modern Copyright Office. Systems should inspire confidence and encourage participation in day-to-day services and transactions. Custom search tools should yield quick, authoritative results. In short, technology should support all aspects of the Copyright Office's mission and adapt to evolving needs.



BUILD A ROBUST AND FLEXIBLE TECHNOLOGY ENTERPRISE THAT IS DEDICATED TO THE CURRENT AND FUTURE NEEDS OF A MODERN COPYRIGHT AGENCY.

PERFORMANCE OBJECTIVES

ENTERPRISE ARCHITECTURE AND INFRASTRUCTURE WILL SUPPORT HIGH AVAILABILITY, HIGH PERFORMANCE, AND HIGHLY SECURE SERVICES THAT INTEGRATE CLOUD AND MOBILE TECHNOLOGIES.

Analyze requirements for premium on-premises and off-premises hosting solutions for copyright systems.

Adopt industry technology standards, architectures, and cloud services that will offer compatibility with current and future technologies.

Expand engagement with copyright owners and other customers regarding such topics as security requirements for data exchange and storage of copyright deposits in the Office's care

THE COPYRIGHT OFFICE WILL EMPLOY SOUND POLICIES FOR THE ACQUISITION AND MANAGEMENT OF TECHNOLOGY INVESTMENTS.

Strengthen the procedures for proposing, reviewing, and finalizing technology investments from across the Copyright Office.

Refine the charter and protocols for submitting proposals to the Copyright Office CIO, ensuring a comprehensive review of key elements, including costs, life-cycle, and implementation.

Implement governance practices that ensure adherence to, and alignment with, the Copyright Office Strategic Plan.

The Copyright Office is developing a detailed IT plan with the assistance of a consulting firm. The Office will seek public comments on specific strategies, costs, and timelines for technology objectives.





It will take the combined efforts of government leaders and private sector talent to create a lean, nimble, results-driven, and future-focused Copyright Office. The Office will call upon experts in the legal, technology, and business fields to complement its work and provide services through advisory roles, special programs, and partnerships.

RECRUIT A DIVERSE POOL OF LEGAL, TECHNOLOGY, AND BUSINESS EXPERTS, INCLUDING A DEDICATED CAREER STAFF, NON-CAREER PROFESSIONALS, CONTRACTORS, AND ADVISORY COMMITTEES.

PERFORMANCE OBJECTIVES

BUSINESS UNITS AND CAREER POSITIONS WILL ALIGN WITH THE OFFICE'S PRIORITIES.

Build a qualified team of technology professionals to manage enterprise systems and projects on a dedicated basis with focused training in, and accountability to, copyright systems.

Align resources to create new positions to ensure necessary expertise in law, business, and copyright administration.

Strengthen resources and programs for expert training and career development at all levels.

WORK-LIFE BALANCE AND OTHER RETENTION INCENTIVES WILL BE IN PLACE FOR QUALIFIED STAFF AND POTENTIAL LEADERS.

Expand telework options and job-share programs.

Expand education support, awards, and distinctions.

SHORT-TERM AND SUPPLEMENTARY PROGRAMS WILL DEVELOP AND EMPLOY UNTAPPED RESOURCES.

Strengthen the ongoing viability of programs for early career professionals, scholars in residence, student interns, and academic partnerships with law schools and universities.

Strategically utilize qualified contractor support, as appropriate, to meet targeted needs.



SPECIAL COMMITTEES AND ADVISORY CIRCLES THAT INCLUDE PUBLIC SECTOR AND PRIVATE SECTOR EXPERTS WILL INFORM THE WORK OF THE OFFICE.

Increase work with industries on technology benchmarks and standards.

Expand regular meetings with legal and business advisors from the nonprofit, public sector, and private sector.

The Copyright Office will create and seek to fill a variety of opportunities, in accordance with priorities and funding.



FUNDING THE FUTURE

The U.S. Copyright Office has long operated on a shoestring budget while making outsize contributions to the rule of law, government policies, and the global marketplace. Although this may feel like a bargain for the American public, it is in fact an ineffective and dated funding paradigm for an agency that is so central to the progress of culture and commerce in the twenty-first century.

There is no question that investments are necessary to meet the strategic goals and performance objectives set forth in the previous pages, but stakeholders should have high expectations for return on these investments. Funding should reflect a strong commitment to both human capital and capital projects, and ensure that the Office is interoperable with, and supportive of, the data, technologies, and businesses of its customer base. Funding should come from two primary sources:

- Fees paid by authors, corporate entities, and other customers, with appropriate accommodations for small actors; and
- Annual appropriated dollars that reflect the value of Copyright Office services to entrepreneurs, the public, and the economy.

The Copyright Office would benefit from having more sophisticated fiscal authority, including the ability to:

- Manage policies for Copyright Office investments, systems, and acquisition processes;
- Submit appropriations requests and operating plans directly to Congress;
- Adopt flexible fee schedules that allow for the recovery of aggregate costs and certain capital costs, including by applying appropriate differentiations between large and small actors;
- Spend fee receipts as needed for capital improvements, staffing deficits, and continuity of service without annual spending caps; and
- Offer flexible opportunities to outside entities, including for complex technology projects or business-to-business initiatives, consistent with government contracting requirements and conflicts of interest considerations.

The Copyright Office will seek public comment regarding funding needs and strategies.





NEW BUSINESS UNITS AND SPECIAL PROGRAMS

To better align resources to the volume and complexity of Copyright Office duties, and to ensure sufficient expertise over core functions, the Register of Copyrights reorganized existing units and created new offices as part of the senior leadership team, as of the dates noted below. The full leadership team is available at <http://copyright.gov/about/leadership.php>.

Office of Chief Information Officer (2013). This Office oversees information technology initiatives and is principally responsible for developing technology strategies related to upgrading and recalibrating Copyright Office services in accordance with industry standards.

Office of Public Records and Regulations (2014). This Office oversees the critical roles of making licenses and other copyright records available to the public, improving and enforcing metadata standards for copyright records, ensuring the security of physical and digital copyright deposits in the care of the Office, and certifying information for transactions and litigation.

Office of Public Information & Education (2014). This Office oversees public information services and outreach, as well as all authoritative publications, including the *Compendium of U.S. Copyright Office Practices* and the *copyright.gov* website.

Office of Chief Financial Officer (2015). This Office oversees budgetary matters, procurement, contracting, and accounting, as well as royalty collections and disbursements for certain statutory licenses under the Copyright Act.

The Register appointed three Deputy Officers in 2015 in the Office of General Counsel, the Office of Policy and International Affairs, and the Office of Registration Policy and Practice, to ensure more manageable workloads and supervision of legal and regulatory work in these offices. And, attorney and project managers have been added to the registration and public information offices, to better identify emerging issues at the business level.

Abraham L. Karpis (our Scholar in Residence Program) (2013)

Through this program, the Copyright Office invites academics with a demonstrated commitment to the study of copyright law and policy to spend time, at the invitation of the Register, conducting paid research and/or working on mutually beneficial projects.

Burkula A. Singer Copyright Mentor Program (2013)

Through this program, the Copyright Office offers paid fellowships to attorneys in the initial stages of their careers over periods of 18–24 months. Applicants must demonstrate exceptional abilities and interest in copyright law and work closely with the Office of General Counsel and the Office of Policy and International Affairs.

Copyright Matters Lecture Series (2011)

Copyright Matters is a community forum to discuss the practical implications of copyright law in the 21st century and to provide education and training to the staff of the U.S. Copyright Office. Through the series, the Register's Office invites a wide range of invited speakers—including Congressional leaders, authors, market experts, technology experts and legal scholars—to present topics of critical importance to the copyright debate. To date, there have included presentations about authorship, copyright registration, marketplace investments, copyright enforcement, fair use, and international norm setting.

Academic Partnership (2013)

The Copyright Office collaborates with law professor and law students on specific copyright-related research and writing projects that serve existing needs of the Office. The Office is currently engaged in ongoing projects with Stanford University Law School and George Washington University Law School.



ADMINISTRATIVE PRACTICE AND PRIORITIES

As part of its effort to modernize Copyright Office systems and practices, the Register has issued five publications since 2011, listed below in reverse chronological order. Some of these publications are products of the public initiatives outlined in *Priorities and Special Projects of the U.S. Copyright Office*, referenced below.

Report and Recommendations of the Technical Upgrades Special Project Team (Feb. 2015)

The Copyright Office's technology infrastructure impacts all of the Office's key services and is the single greatest factor in its ability to administer statutory licenses and copyright registration and recordation services effectively. Yet the Office is currently utilizing twentieth-century technology while trying to meet twenty-first century needs. In consultation with stakeholders and the public, the Copyright Office CIO undertook a multi-year evaluation of the technology that underpins the Office's current systems. As a result of this process, the Technical Upgrades Special Project Team issued a report making a series of recommendations to improve and modernize the Office's technology systems and infrastructure.

Report and background materials: http://copyright.gov/docs/technical_upgrade/

The Compendium of U.S. Copyright Office Practices, Third Edition (Dec. 2014)

This was the first major revision of the *Compendium* in more than twenty-five years. At more than three times the size of the previous edition, it encompasses a comprehensive overview of the Office's practices and standards and makes them easily accessible and transparent to the public and the courts. The *Compendium* serves as a technical manual for the Office's staff, as well as a guidebook for authors, copyright licensees, practitioners, scholars, the courts, and members of the general public. It addresses fundamental principles of copyright law, such as creation, publication, registration, and renewal, as well as routine questions such as who may file an application, who may request copies of the Office's records, and how to submit titles and registration numbers in electronic form. It also contains a new Table of Authorities that lists the cases, statutory provisions, and other legal authorities cited in the Third Edition and the relevant section where each citation may be found. For the first time, the *Compendium* is a living electronic document.

Compendium: <http://copyright.gov/compendium/>

Transforming Document Recordation at the United States Copyright Office (Dec. 2014)

Recordation of licenses, assignments, termination notices, and other records that form the life-cycle of a copyright interest is one of the key statutory functions of the Copyright Office. In order to make the resulting copyright records easily searchable, widely available, and useful to the public, it will be necessary to update the way this data is currently received, stored, and accessed. To this end, the 2013–14 Kaminsky Scholar in Residence undertook a review of the current state of copyright recordation and made recommendations for development and deployment of an electronic recordation system,

LEGAL RESOURCES AND POLICY STUDIES

Since 2011, the Copyright Office has published a compilation of judicial opinions on fair use as well as six policy reports in support of Congress and its efforts to analyze or update the Copyright Act. These are listed below in reverse chronological order. Additional reports and studies are forthcoming.

Fair Use Index (April 2015)

The Fair Use Index is a new tool tracking over 175 key judicial decisions regarding the fair use doctrine under copyright law. It is designed to help both lawyers and non-lawyers better understand the types of uses courts have previously determined to be fair—or not fair. The decisions span multiple federal jurisdictions, including the U.S. Supreme Court, circuit courts of appeal, and district courts. The index was launched in support of the Joint Strategic Plan of the PEC and is updated periodically.

Resource at: <http://copyright.gov/fair-use/>

Orphan Works and Mass Digitization (June 2015)

The Orphan Works and Mass Digitization study evaluated two circumstances in which practical obstacles under current law, including the lack of a clear statutory exception or licensing mechanism, may prevent good-faith actors from making productive uses of copyrighted works. The issue of “orphan works” refers to circumstances where a copyright owner cannot be identified or located, despite diligent efforts. The Mass Digitization analysis presents collective licensing options for large scale access or other uses to the extent they go beyond fair use or are otherwise ineligible for a statutory exception. The Report offers balanced frameworks by which users may move forward with their proposed uses and copyright owners may be compensated, as appropriate.

Report and background materials: <http://copyright.gov/orphan/>

Copyright and the Music Marketplace (Feb. 2015)

Recognizing the cultural and economic importance of music, the Copyright Office evaluated the aging music licensing framework and the ever-evolving needs of those who create and invest in music in the twenty-first century. After an exhaustive review of the existing music marketplace, including statutory licenses, the role of performing rights organizations, access to music ownership data, and the concerns of songwriters and recording artists, the report made a number of recommendations aimed at bringing both clarity and relief to all players in the music marketplace through a series of balanced tradeoffs designed to create a more rational music licensing system.

Report and background materials: <http://copyright.gov/olm/music/mcsmpg/index/>

including addressing issues such as how to allocate responsibility for providing document cataloging information, how best to store and make electronic documents available, and how to accept and authenticate electronic signatures.

Report and background materials: <http://copyright.gov/docs/reccordation/>

Proposed Schedule and Analysis of Copyright Fees to Gain No Effect on or about April 1, 2014 (Nov. 2013)

In accordance with the procedures set forth in Section 708 of the Copyright Act, the Copyright Office conducted a multi-year public review of its fee schedule for the registration of claims, recordation of documents, special services, Licensing Division services, and FOIA requests. As part of this review, the Office conducted a preliminary assessment of its 2011 costs and solicited stakeholder and public input into a proposed fee schedule. The analysis and proposed fee schedule were submitted for review by Congress and became effective on May 1, 2016, codified at 37 C.F.R. § 201.3. For the first time, the fees were differentiated to accommodate the considerations of individual authors filing certain non-complex claims. As discussed in the Funding the Future section of this Strategic Plan, the Office continues to consider the parameters of its fee authority and statutory charges that may permit the Office to further aggregate or offset costs and capital expenses.

Report and background materials: <http://copyright.gov/docs/fees.html>

Schedule of Fees: <http://copyright.gov/docs/fees.html>

Priorities and Special Projects of the United States Copyright Office (Oct. 2011)

Issued shortly after the Register's appointment, the Priorities and Special Projects document set forth the Office's immediate priorities and announced a series of "special projects" to be undertaken with staff and the public. The special projects focused the Office on assessing a number of critical challenges, including: (1) updating the fee schedule and improving the Office's fiscal health; (2) updating, recoding, and publishing registration practices; (3) addressing problems in technology infrastructure and improving the website; (4) re-engineering the recordation process and making historic records available; (5) meeting the increasing public demand for copyright information and education; (6) attracting, retaining, and training a highly skilled and multi-talented staff; and (7) creating relationships with academic institutions and scholars.

Document: <http://copyright.gov/docs/priorities.pdf>

Royalty Royalties: An Updated Analysis (Dec. 2013)

The Copyright Office analyzed the issue of resale royalties for visual artists at the request of Congress, including historical treatment and a comparative analysis of foreign laws. The Office concluded that certain visual artists, who typically do not share in the long-term financial success of their original works, may operate at a disadvantage under the copyright laws relative to authors of other types of creative works. Accordingly, the Office recommended further congressional exploration of a resale royalty, as well as other possible alternative or complementary options for supporting visual artists.

Report and background materials: <http://copyright.gov/docs/royalty.pdf>

Copyright Small Claims (Sept. 2013)

At the request of Congress, the Copyright Office reviewed the challenges the current system for resolving copyright disputes poses for copyright owners with potentially limited means or seeking to halt infringement that has caused a relatively modest amount of economic harm. Recognizing that the current system, where copyright owners must seek redress through the federal courts, can require the expenditure of substantial time, money, and effort for both the plaintiff and the defendant, the Office recommended the creation of a centralized tribunal within the Copyright Office as a voluntary alternative to the federal courts that would be available to resolve small copyright disputes on a streamlined basis.

Report and background materials: <http://copyright.gov/docs/smallclaims/>

Federal Copyright Protection for Pre-1972 Sound Recordings (Dec. 2011)

At the urging of sound recording architects and on the instruction of Congress, the Copyright Office conducted a study on the desirability of and means for bringing pre-1972 sound recordings into the federal copyright regime. The report considered how best to preserve and offer appropriate access to sound recordings created before February 15, 1972. The Office concluded that federalization of these recordings would best serve the interests of libraries, archives, and others in preserving and increasing the availability to the public of old sound recordings. To accomplish this aim, the Office made certain additional recommendations relating to ownership, terms of protection, and registration of these works.

Report and background materials: <http://copyright.gov/docs/federal/>

Satellite Television Extension and Localism Act § 302 Report (Aug. 2011)

As required by Section 302 of the Satellite Television Extension and Localism Act of 2010 and after consultation with stakeholders and public hearings, the Copyright Office issued a report on marketplace alternatives to the statutory licenses set forth in Sections 111, 119, and 122 of the Copyright Act. The Office recommended a structured phase-out of these statutory provisions, while taking into account the reasonable needs of those who would be affected.

Report and background materials: <http://copyright.gov/docs/section302/>

MODERNIZATION HEARINGS AND WRITTEN TESTIMONY

The Register's Perspective on Copyright Review: Hearing Before the H. Comm. on the Judiciary, 114th Cong. (2015)

- Sole witness: Maria A. Pallante, Register of Copyrights and Director, U.S. Copyright Office.
- Hearing materials: <http://judiciary.house.gov/index.cfm?ID=54> regarding the register's perspective on copyright review
- Transcript: http://judiciary.house.gov/index.cfm?ID=54&File_Serve&File_ID=5448F6D8-5AEC-4378-B8E0-7A1026AC4E48
- Prepared statement of Register Pallante: http://judiciary.house.gov/L_Cong_Hrsg_10833246-104-4031322_103434166ed/written-testimony-of-register-maria-a-pallante.pdf

U.S. Copyright Office: Its Functions and Resources, Hearing Before the Subcomm. on Courts, Intellectual Prop., & the Internet of the H. Comm. on the Judiciary, 114th Cong. (2015)

- Four witnesses: Keith Kupferschmid, General Counsel, Software & Information Industry Association; Lisa Dunner, Partner, Dunner Law PLLC, on behalf of the American Bar Association; Harry Wertzel, Partner, Schoeman Updike Kaufman & Stern LLP on behalf of the American Intellectual Property Law Association; and Rob Brarrent, Professor, George Washington University Law School
- Hearing materials: <http://judiciary.house.gov/index.cfm?ID=52> regarding the U.S. Copyright Office's functions and resources
- Transcript: http://judiciary.house.gov/index.cfm?ID=52&File_Serve&File_ID=524E586A-0F36-4685-9722-CC84A2742A00
- Letter from Maria A. Pallante, Register of Copyrights and Director, U.S. Copyright Office, in response to John Coyner, Jr., Ranking Member, H. Comm. on the Judiciary 6 (Mar. 22, 2015): <http://copyright.gov/docs/testimony/027615-testimony-pallante.pdf>

Overight of the U.S. Copyright Office: Hearing Before the Subcomm. on Courts, Intellectual Prop., & the Internet of the H. Comm. on the Judiciary, 113th Cong. (2014)

- Sole witness: Maria A. Pallante, Register of Copyrights and Director, U.S. Copyright Office.
- Hearing materials: <http://judiciary.house.gov/index.cfm?ID=49> regarding oversight copyright
- Transcript: http://judiciary.house.gov/index.cfm?ID=49&File_Serve&File_ID=5448F6D8-5AEC-4378-B8E0-7A1026AC4E48
- Prepared statement of Register Pallante: http://judiciary.house.gov/_docs/Hrsg_1061709-4165-4378-5425304680207039164_Final%20written%20public%20.pdf

- The Register's Call for Updates to U.S. Copyright Law: Hearing Before the Subcomm. on Courts, Intellectual Prop., & the Internet of the H. Comm. on the Judiciary, 113th Cong. (2013)*
- Sole witness: Maria A. Pallante, Register of Copyrights and Director U.S. Copyright Office.
 - Hearing materials: <http://judiciary.house.gov/index.cfm?aid=12014&doc=register-s-call-for-updates-to-u-s-copyright-law-5>
 - Transcript: http://judiciary.house.gov_files/hearing_materials/H13m713-10_80067.PDF
 - Prepared statement of Register Pallante: http://judiciary.house.gov_files/hearing_materials/H13m713-10_80067.PDF

RELATED SPEECHES OF THE REGISTER OF COPYRIGHTS

- Maria A. Pallante, *Review and Reflection: Copyright: Hearings and Related Discourse in the Nation's Capitol*, 13 J. MARSHALL REV. ON INTEL. PROP. L. & INT. 104 (2014): <http://jeffersonproject.org/jeffersoncontent/copyright-rev-1228&context=ip>
- Maria A. Pallante, *The Next Generation Copyright Office: What It Means and Why It Matters*, 61 U. CONNECTICUT 271 (2014) (Eleventh Annual Christopher A. Meyer Memorial Lecture): <http://copyright.gov/about/copyright/next-generation.pdf>
- Maria A. Pallante, *The Curious Case of Copyright Formalities*, 28 BERKELEY TECH. L.J. 1415 (2013) (David Nelson Memorial Keynote Address): <http://copyright.gov/about/copyright/curiouscaseofcopyrightformalities.pdf>
- Maria A. Pallante, *The Next Great Copyright Act: 36 COLOS. L.L. & ARTS 315 (2013)* [Twenty-Sixth House S. Manges Lecture]: http://www.copyright.gov/docs/next_great_copyright_act.pdf
- Maria A. Pallante, *Orphan Works & Mass Digitization: Obstacles & Opportunities*, 27 WISCONSIN TECH. L.J. 1351 (2013) (David Nelson Memorial Keynote Address): <http://copyright.gov/igilaw/2013/Pallante-OrphanWorks.pdf>

OTHER MODERNIZATION MATERIALS

- INSPECTOR GENERAL AND GOVERNMENT ACCOUNTABILITY OFFICE
- Library of Congress, Office of the Inspector General Reports
- 2014-P4-101: *The Library Needs to Determine an eDeposit and eCollections Strategy* (April 2015):



Budget Process and Testimony

BUDGET PROCESS AND RESOURCES

U.S. COPYRIGHT OFFICE BUDGET PROCESS

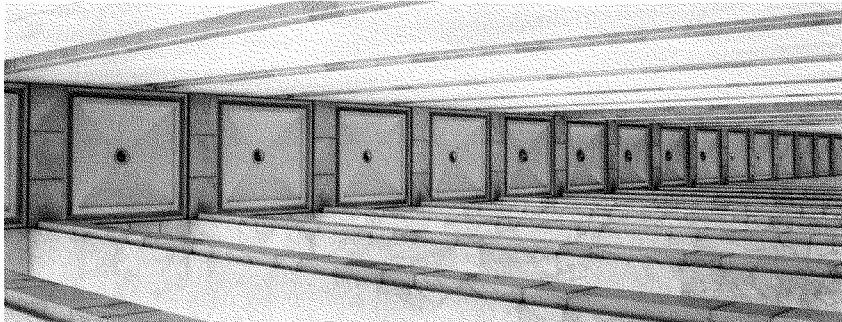
The Copyright Office's annual funding request is formulated each year as part of the funding request for the overall Library of Congress. The Copyright Office has received a separate appropriation within the overall Library budget since the Office was created in 1897. In addition to the appropriation for the Copyright Office, the Library's budget includes three other appropriations: (i) Library of Congress salaries and expenses ("Library S&E"), (ii) Congressional Research Service ("CRS") salaries and expenses; and (iii) Books for the Blind and Physically Handicapped ("BSBPH") salaries and expenses. The Library's budget is submitted as part of the President's Budget, generally in January, with a targeted implementation of October 1st. The Librarian also submits the budget to Congress through the House and Senate subcommittees on legislative branch appropriations.

The Librarian has final discretion regarding budget decisions. The Librarian's Office has historically issued internal guidelines or directions before the budget call, including whether it will accept or submit requests for increases, how it will prioritize requests from across the agency, and how it will balance the four appropriations. Working within this framework, the Register and senior leadership team of the Copyright Office prepare requests for increases based on the Office's primary goals (e.g., designing an

online recommendation system) and urgencies (e.g., insufficient staff to handle backlog). The Office proposes whether it will fund these increases from collected fees or other appropriated dollars.

In accordance with Library policy, the Executive Committee of the Library meets in the fall to discuss budget requests from across the Library and across the four appropriations. This includes the Register's request, which typically involves a combination of authority to spend fees, authority to use any excess fees that have accumulated across prior years, and requests for additional appropriated dollars. The Executive Committee is chaired by the Librarian and includes three additional people from the Librarian's Office (the Deputy Librarian, the Chief of Staff, and the Chief Operating Officer), as well as the head of the Congressional Research Service, the head of the Law Library, the head of Library Services, the head of National and International Outreach, and the Register of Copyrights. In accordance with Library policy, the Librarian weighs all submissions, takes feedback from the Executive Committee, makes final decisions, and testifies at the invitation of Congress. The Register traditionally submits written testimony to Congress explaining the work of the Copyright Office and supporting the Librarian's final budget request for the Copyright Office.

Library policy also requires a separate agency-wide meeting regarding budget requests that involve technology investments. This group, called the Information Technology Steering Committee (ITSC), was created in loose form in 2010, but as of September 8, 2015, is chaired by the Library's newly appointed Chief Information Officer. It is comprised of representatives from the major Library divisions, including the Copyright Office Chief Information Officer. The purpose of this group is to advise the Executive Committee as to whether proposed technology investments support the Library's strategic direction and whether the Library has sufficient technical capacity and resources to support the proposals. (All ITSC members review all proposals.) The Library has been working to revise the ITSC in response to both internal and external questions about the timing and scope of its role and the effect or constraints of the ITSC process on the Register's statutory authority.



LIBRARY OF CONGRESS OPERATING PLAN

The four appropriations of the Library of Congress totaled \$430.9 million in FY 2015, as follows:

- Library of Congress salaries & expenses: \$419.4 million, of which \$6.4 million is offsetting appropriations (e.g., for sales of LC bibliographic records). The Library provides central services to the Copyright Office (e.g., human resources and IT procurement) out of this appropriation, but the value of these services is not apportioned throughout the agency.
- Congressional Research Service salaries & expenses: \$106.9 million
- Books for the Blind and Physically Handicapped salaries & expenses: \$50.2 million
- U.S. Copyright Office: \$54.3 million, of which \$28 million is fees collected by the Office for services, \$5.2 million is money collected from statutory royalty pools as administrative overhead for the Copyright Office's licensing division, and \$400 thousand is money collected as administrative overhead for the Copyright Royalty Board.

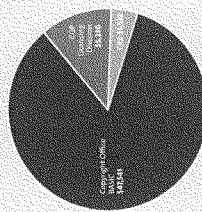
In FY 2014, the Copyright Office transferred books and other copyrighted works to the library worth approximately \$32 million. These works come from two streams, roughly 40 percent from registration and 60 percent from mandatory deposit requirements (registration satisfies mandatory deposit under current law if the copy submitted is the "best edition"). They comprise about 21 percent of the Library's collection acquisition for the fiscal year. This value is not reflected in the Copyright Office budget ledger.

STAFFING

In FY 2015, the Library of Congress had an FTE ceiling of 3,246. Within this, the Copyright Office had an FTE ceiling of 475 as follows: 439 for core functions (BASIC), 30 for the Licensing Division, and 6 for the Copyright Royalty Board. During the budget preparations for FY 2016, however, the Library was asked to eliminate unused FTEs across the agency. The Library's overall FTE ceiling was reduced to 3,401. This number included, in the case of the Copyright Office, FTEs that were not filled because of FY 2015 funding shortfalls. The Library's 2016 Budget Justification shows the Copyright Office losing 61 FTEs out of 475, bringing the total to 414 authorized FTEs, the lowest in decades. However, the Office has requested 20 new FTEs for the registration program, paid via customer fees, and 5 for the recordation program, paid via taxpayer dollars, bringing the Copyright Office's total 2016 request to 439. The Office will continue to request FTEs in this manner, tying requests for funding and for staffing to new or updated functions.

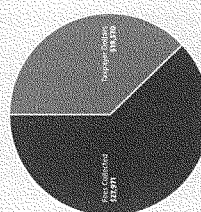
BUILDINGS

The Architect of the Capitol receives appropriations for maintenance, care, and operation of the Jefferson, Madison, and Adams buildings and grounds, as well as appropriations to cover heat, light, and power. The Library does not pay rent or utilities for occupancy of these Architect-managed properties.

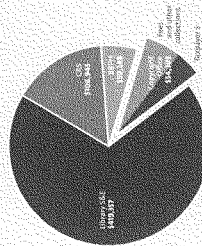


Copyright Office FY 2015 Operating Plan
Total Authority \$54,103 (Dollars in Thousands)

Of the \$43.3 million that constitutes the Copyright Office BASIC Budget, \$28 million of that comes from fees collected, and \$19.6 million comes from taxpayer dollars.



Copyright Office FY 2015 Operating Plan
Total Authority \$47,541 (Dollars in Thousands)



Library of Congress FY 2015 Operating Plan
Total Authority \$600,853 (Dollars in Thousands)

The Copyright Office has three line items within the \$44.3 million dollar appropriation noted above. This covers the Copyright Office Salaries and Expenses ("Copyright Office (BASIC)"), the Licensing Division (which is funded entirely by filing fees and administrative charges from the royalty pools of statutory licenses) ("COP Licensing Division"), and the Copyright Royalty Board (which is funded by both taxpayer dollars and administrative fees from statutory royalties) ("CRB").

Salaries and expenses of the Copyright Office come out of the Copyright Office's appropriation, with the exception of four employees on the Office's 22 person mandatory deposit staff who are funded by the Library.

BUDGET TESTIMONY AND WRITTEN STATEMENTS

FY 2016

Library of Congress, Fiscal 2016 Budget Justification: <http://www.loc.gov/about/budget/2016/fiscal-fy2016-budget-justification.pdf>

S. REP. NO. 114-64, Legislative Branch Appropriations, 2016 (2015) (discussion of Library of Congress budget beginning at p. 38): <http://www.congress.gov/114/legtext/114/bills/64/114.pdf#page=38>

H.R. REP. NO. 114-110, Legislative Branch Appropriations Bill, 2016 (2015) (discussion of Library of Congress budget beginning at p. 15): <http://www.congress.gov/114/legtext/114/bills/110/114.pdf#page=15>

F116 Library of Congress & Architect of the Capitol Budget: Hearing Before the Subcomm. on the Legis. Branch of the S. Comm. on Appropriations, 114th Cong. (2015)

- Hearing materials: <http://www.appropriations.senate.gov/recordings/legislative-branch-subcommittee-hearing-fy16-library-of-congress-and-architect-of-the-capitol-budget>
- Prepared written statement of Dr. James H. Billington, Librarian of Congress: <http://www.appropriations.senate.gov/recordings/recordings/114/legtext/114/bills/110/114.pdf#page=38>
- Prepared written statement of Maria A. Pallante, Register of Copyrights: <http://www.appropriations.senate.gov/recordings/recordings/114/legtext/114/bills/110/114.pdf#page=38>

Budget Hearing – Architect of the Capitol and Library of Congress: Hearing Before the Subcomm. on the Legis. Branch of the H. Comm. on Appropriations, 114th Cong. (2015)

- Hearing materials: <http://www.house.gov/recordings/recordings/114/legtext/114/bills/110/114.pdf#page=38>
- Prepared written statement of Dr. James H. Billington, Librarian of Congress: <http://www.house.gov/recordings/recordings/114/legtext/114/bills/110/114.pdf#page=38>
- Prepared written statement of Maria A. Pallante, Register of Copyrights: <http://www.house.gov/recordings/recordings/114/legtext/114/bills/110/114.pdf#page=38>
- Questions for the record: <http://www.house.gov/recordings/recordings/114/legtext/114/bills/110/114.pdf#page=38>

FY 2015

Library of Congress Fiscal 2015 Budget Justification: <http://www.loc.gov/about/budget/2015/fiscal-fy2015-budget-justification.pdf>

S. REP. NO. 113-196, Legislative Branch Appropriations, 2015 (2014) (discussion of Library of Congress budget beginning at p. 38): <http://www.congress.gov/113/legtext/113/bills/196/196.pdf#page=38>

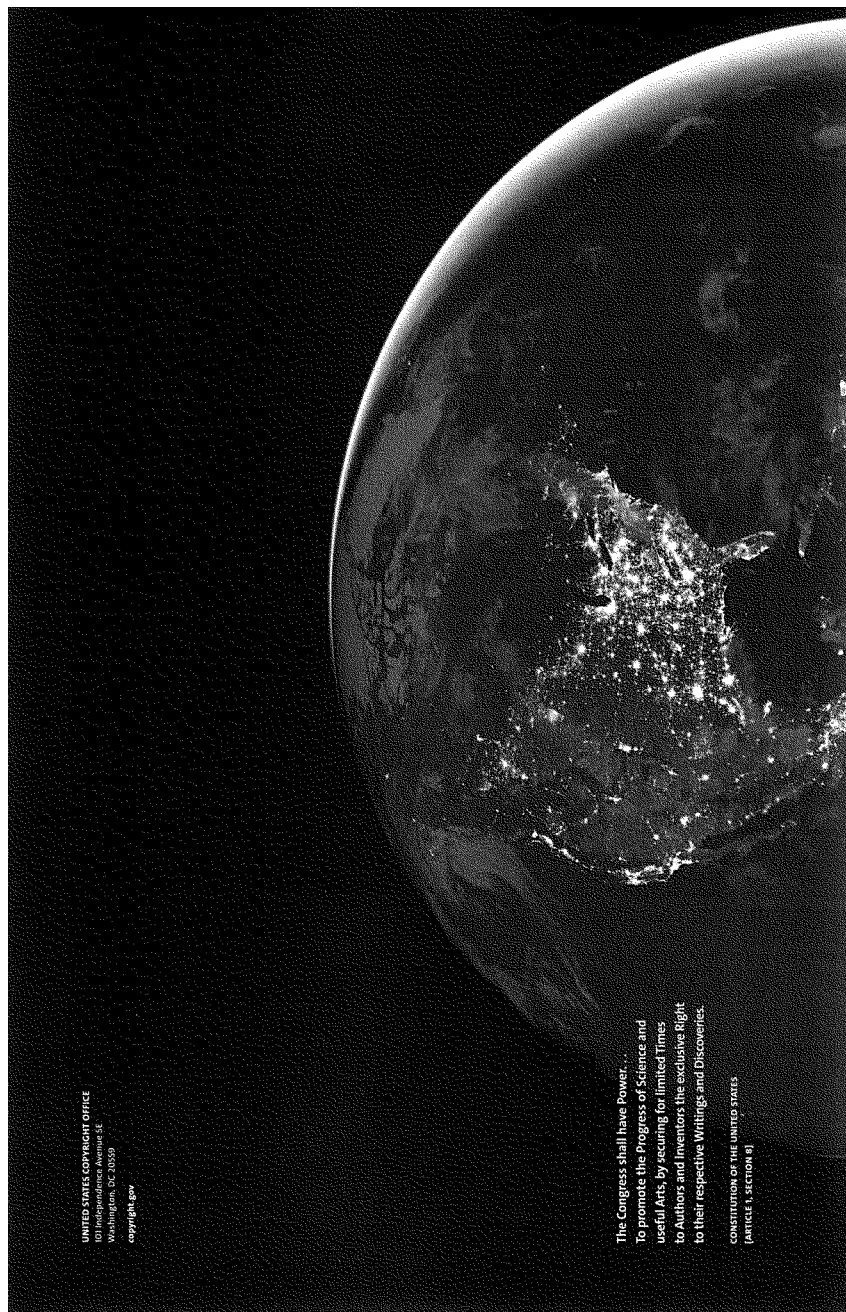
H.R. REP. NO. 113-417, Legislative Branch Appropriations Bill, 2015 (2014) (discussion of Library of Congress budget beginning at p. 13): <http://www.congress.gov/113/legtext/113/bills/417/417.pdf#page=13>

F113 Architect of the Capitol, Library of Congress and Open World Leadership Center Budget Requests: Hearing Before the Subcomm. on the Legis. Branch of the S. Comm. on Appropriations, 113th Cong. (2014)

- Hearing materials: <http://www.appropriations.senate.gov/recordings/113/legtext/113/bills/417/417.pdf#page=13>
- Prepared written statement of Dr. James H. Billington, Librarian of Congress: <http://www.appropriations.senate.gov/recordings/recordings/113/legtext/113/bills/417/417.pdf#page=13>
- Prepared written statement of Maria A. Pallante, Register of Copyrights: <http://www.appropriations.senate.gov/recordings/recordings/113/legtext/113/bills/417/417.pdf#page=13>
- Questions for the record: <http://www.appropriations.senate.gov/recordings/recordings/113/legtext/113/bills/417/417.pdf#page=13>

Budget Hearing – Library of Congress: Hearing Before the Subcomm. on the Legis. Branch of the H. Comm. on Appropriations, 113th Cong. (2014)

- Hearing materials: <http://www.house.gov/recordings/recordings/113/legtext/113/bills/417/417.pdf#page=13>
- Prepared written statement of Dr. James H. Billington, Librarian of Congress: <http://www.house.gov/recordings/recordings/113/legtext/113/bills/417/417.pdf#page=13>
- Prepared written statement of Maria A. Pallante, Register of Copyrights: <http://www.house.gov/recordings/recordings/113/legtext/113/bills/417/417.pdf#page=13>
- Questions for the record: <http://www.house.gov/recordings/recordings/113/legtext/113/bills/417/417.pdf#page=13>



UNITED STATES COPYRIGHT OFFICE
101 Independence Avenue SE
Washington, DC 20540
copyright.gov

The Congress shall have Power...
To promote the Progress of Science and
useful Arts, by securing for limited Times
to Authors and Inventors the exclusive Right
to their respective Writings and Discoveries.

CONSTITUTION OF THE UNITED STATES
(ARTICLE I, SECTION 8)

The CHAIRMAN. Perhaps you could talk a little bit about whether or not your customers look at your current system, the eCO system, as something that is really customer service oriented, that it is easier for them, that they have a good experience with that.

Ms. PALLANTE. Thank you, Chairman Miller.

So I think one way to look at eCO, because it predates everybody at this table, is that it was a good first-generation system. It is 10 years old, and it was probably outdated by the time it was implemented. I get to say that because I was in private practice in New York at the time and I wasn't there and don't really know whether it was state of the art at the time or not.

I do think that off-the-shelf software was a big push in government agencies at that time, and I think those were probably the instructions coming from the appropriators in conversations with the Librarian's office about budget.

And I will further say that I think one of the biggest issues is that—and, again, this may reflect the period, not so much the agency—the goal was really to replicate the paper processes that had been in place for a century into some kind of electronic interface, rather than create a digital interface that harnesses digital technology and connects to the global marketplace, which is where we are today.

So when I was appointed Register on June 1, 2011, immediately in talking with my staff and doing a lot of external stakeholder meetings it became clear to me that eCO was something we needed to look at closely. What I wasn't counting on was that eCO—as the software application that we manage—was sitting on top of a network and operating system and an IT governance model that really held the key to the effectiveness of whether that could be developed further or not.

So I am not an auditor or an accountant. We have somebody here to answer those questions. But this becomes a sunk cost issue, right? So I am not a fan of eCO. Most people are not. It is probably not a flexible enough software package to further customize and invest in. It never extended to recordation, which is different than registration. That is where one records security interests and wills and estates and any other way that you are going to track IP rights in the world.

Recordation is still paper. I think we might want to consider it a blessing that we didn't go ahead and dump recordation into eCO 10 years ago as well. That is not to say it hasn't been painful to have that be a paper process, but I have come to believe that we have an opportunity now to get that right, and in doing recordation right, go back and integrate registration at the same level.

So in the 360 that I did in the technical upgrades report that I released, it documents many of the frustrations. It is too slow, it is too clunky, it is not intuitive. One can't go into the system and track where they are in the process.

I will say this. Whatever frustrations the public experiences are then some on the employee side who are on the other side of that software package using it day in and day out. So with that in mind and having done the baseline report, we do outline here the kind of administration that we really should be offering the public.

The CHAIRMAN. Well, I will take that as an answer that you don't really like the system and it is obviously very antiquated. So one of the things coming out of this hearing, and following as well, is the Library is prioritizing resources in IT investment, et cetera. We will be interested to see how all of that works. I mean, we have to know so that we can help you. It is really the purpose of this hearing, so that this Committee can be aware of the challenges that you are all facing at the Library, and all across the Library, but certainly in the Copyright Office with IT challenges and how we can assist getting us up to speed so that customers—I mean, waiting 18 months for some of these things is a huge handicap for—

Ms. PALLANTE. Those are paper processes, just so you know, not the electronic.

The CHAIRMAN. Oh, okay, the paper process.

Ms. PALLANTE. There are Members who have constituents who still prefer to mail things in by paper. So that is the extreme end.

The CHAIRMAN. I see.

Ms. PALLANTE. But it should be immediate. You are right.

The CHAIRMAN. All right, very good. The Chair recognizes the Ranking Member.

Mr. BRADY. Thank you, Madam Chair.

David, thank you for your testimony. It is clear that you are doing a good bit of work very quickly at the Library. It is a great institution with great resources for us and for the American people. We are friendlies here. We want to be able to be helpful to you. So anything that you need when you need anything from us, just let us know, you know, and maybe we can get ahead of something before something becomes a lot bigger than we can have to handle. So stay in touch with us, and we will stay in touch with you.

I know we are here to talk about the Copyright, but I hope you give me a little few minutes on some details on other priorities that the Library is doing now under your watch.

Mr. MAO. Thank you. Well, let me tell you about my goal during this time as Acting Librarian of Congress, and my main goal for this period is to ensure that the Library of Congress is best positioned for the future. That is it. The topic of today's hearing, IT management, certainly is a part of that priority and part of that goal. It is a great priority.

But there are others as well. Other priorities for me in particular are focusing on the staff at the Library of Congress, our human resources. We need to take the time to invest the time and resources, develop our staff currently and develop future staff. Certainly collection care is something that we all have to worry about at the Library of Congress and that is another great priority.

But I think if you take all of these, the IT management, the human resources, the collection care, all of them can be supported by the pillars that I talked about in my opening statement talking about leadership and collaboration, communication, and good governance to make sure that we can support all of these. And so I look forward to working with not only my colleague the Register of Copyrights but all of the senior leaders across the Library of Congress, as well as the very, very dedicated staff that we have at the Library and you Members of Congress to ensure that the Library

of Congress continues to be the great institution that it is. Thank you.

Mr. BRADY. Thank you.

And thank you, Madam Chair. I have no other questions.

The CHAIRMAN. The Chair recognizes Mr. Harper.

Mr. HARPER. Thank you, Madam Chair.

And thanks to each of you. There is obviously a little perceived tension on what your job is and what you have to do, and we want to be very sensitive to that to make sure that you have everything that you need to function properly. You have the great responsibility to oversee the Copyright Office, which is of tremendous importance and becoming more important every day.

And I can imagine that 10 years ago, we had no real concept for what we were going to be or no feel for what we were going to be doing today and the challenges we will have as we move more and more into a digital age and how that is going to be done. And you have not only to take care of it there, but to take care of those users and customers, we shall say, that are out there.

And, Mr. Mao, you have got an even larger responsibility. In that larger responsibility we want to make sure that we are doing everything that you are going to need to do that job, that is the purpose of this hearing.

So if eCO is not the future, it is really not even the present, what do we do? Do you have a recommendation that you have for what you need, how much it would cost, and if you had that available, how quickly it could be implemented?

Ms. PALLANTE. Well, thank you.

So, yes, this strategic plan outlines in great detail our recommendations for moving forward, as well as the broad copyright community, so all parts of it, copyright owners, individual authors, businesses, public interest organizations, the tech sector, et cetera.

Again, eCO is almost the last piece. That is the software application for certain services that the public interacts with. And that would have been my early intuition as Register, could we please throw away eCO and go to something open source? It can't be that hard. But in fact, it has to be related to the underlying operating system, who has the ability to maintain and access that, who has administrative privileges, how that relates to a robust, secure enterprise architecture designed with all of the different services in mind.

One of the big issues we have is that all of the services are not integrated. It is really frustrating, right? I mean, if you are looking for rights, you want to look for registrations, but if you registered a book or a movie in 1985 chances are it has been assigned or licensed multiple times, including internationally. That is the chain of title that we need to acknowledge, and that has——

Mr. HARPER. So how do you get everything in one universe?

Ms. PALLANTE. Yeah. And it requires legal thinking and IT thinking at the same time, and that has been disconnected in the past.

Mr. HARPER. And is it something, though, with work, funds, and determination——

Ms. PALLANTE. Absolutely.

Mr. HARPER. You are clear in your report, and I looked at the report last night, my late-night homework to look at it.

So, Mr. Mao, tell me what you have been doing to address these concerns as far as meeting with your new CIO and with the Register to make sure that you are going to be able to accomplish those goals.

Mr. MAO. Well, thank you. First thing I want to say is that the Copyright Office's concerns are concerns for the Library of Congress and certainly they are a concern of mine, and we take them all very seriously. And so we are moving aggressively on that and I think we have done so in the last few months on trying to address the Copyright Office's concerns, especially in the IT arena. We have developed a draft IT strategic plan that links, when released, you will see that it links with the recently released Library of Congress Strategic Plan for fiscal years 2016 to 2020 and also works in concert with the strategic plan that the Register has released.

In addition, we are working very closely by communicating. The CIO speaks on a regular basis, if not a daily basis, with the CIO for the Copyright Office so that we can make sure we understand the concerns that are being raised and that we can address them and make sure that we can provide the service and support that is needed.

Mr. HARPER. And does Mr. Barton have the authority and autonomy to move towards those things that Register Pallante needs to do?

Mr. MAO. Yes, indeed. The CIO is a member of the Library's Executive Committee. As I mentioned earlier, I meet with him on a weekly basis to talk about the challenges that we are facing and how we are addressing them. And he has taken a great, great first couple of weeks, you know, in place and moving right ahead. And I believe Mr. Willemssen had indicated that he was impressed with the progress that we have made in a very short amount of time. And so we will continue with that moving forward.

Mr. HARPER. Of course, I realize he has only been on the job since September the 8th, not even 3 months, and I know those are ongoing issues and concerns that we have. But it has certainly got to be, you know, these are things that we as a Committee expect you to be able to work through, work out.

And we are here to help. And so come to us when those things are here and give us that plan, what we have got to do. This is something we cannot neglect. And we want to, certainly, and I know this is something that Chair Miller is very committed to doing, and we will continue to have follow-up to check that progress, I am sure.

With that, I yield back.

The CHAIRMAN. The Chair recognizes the gentlelady from California, Ms. Lofgren.

Ms. LOFGREN. Thank you, Madam Chair, and thanks for this hearing.

Mr. Mao, welcome to the Committee. You come at a time of great transition for the Library. And certainly your predecessor did many wonderful things in his long career. Being a techie was not one of his fine points. So you have your work cut out for you, as I am sure you are aware.

You know, I listened carefully to all of the testimony. I am the only member of the Committee that serves on both the Judiciary Committee and this Committee. And I don't want to get too far into the weeds on copyright law, but you have to to some extent.

Section 1201 of the Digital Millennium Copyright Act assigns to the Register certain functions to provide for exemptions for anticircumvention provisions and this has been problematic. I am sure you heard from your constituents a couple of years ago when the office said you couldn't take the cell phone that you own and utilize it. And of course we had to go back in and change it. You may not have heard of the time that the Register declined to approve in 2010, I believe it was, the circumvention so that blind people could get text-to-voice. The reason why you didn't hear about that was because the Librarian of Congress, thank God, overruled the Register on that very bad decision.

So I do think there is, there has traditionally been a great value in having the office located in the Library itself. I just wanted to express, since I am here and we haven't had the Register in the Judiciary Committee, some grave concerns about the latest lack of exemption for vehicle research. As you know, almost every automobile now has software in it. And what the ruling has done is that if your auto mechanic has to circumvent the software to repair the car, they have violated the DMCA, because there is a specific ruling by the Register that third parties can't circumvent the software.

I think that is a wrongheaded decision and I think it is also a dangerous decision, because all of the software defects in automobiles, and there are many, unfortunately, have been found out by third parties. The manufacturers aren't the ones saying, you know, by the way, your car can be hacked. It is third parties. So I think, I am hoping that the Register can share this with the new Acting Librarian and he might be able to step in and put some sense into this issue.

Getting back to funding, I noticed in the GAO report, which is very helpful—and I am so appreciative of the GAO. You guys wade in, you don't have an agenda, you just try and figure out what is going on. You are not perfect any more than any of us are, but, you know, you call it as you see it. And it is so appreciated. You are really a valuable asset for the Congress and the country.

And I notice that you have talked about on page 23 the Register basically hasn't formatted a plan, which I think is problematic, but obviously any plan would need to be funded.

Now, I believe, and I don't know if you looked at this, Mr. Mao, that it is the office's position that the fee-setting authority would not allow fees to fund the IT upgrades and expansions. I don't know—I don't think that is true because the statute actually says that when setting fees the reasonable costs incurred by the Copyright Office for providing registration, recordation, and, quote "provision of services" can be the basis for the fees. And any tech company in the world would include software development as part of the provision of services in something that would be, I think, part of this fee structure.

Did you have a chance to look at that?

Mr. WILLEMSSEN. We did not look at that specific issue.

Ms. LOFGREN. I wonder if you could take a quick look at that.

Mr. WILLEMSSEN. Okay.

Ms. LOFGREN. And the other thing that I am wondering about is, does the Copyright Office receive more in fees than it is allowed to spend in the appropriations cap and how much reserve is currently sitting in the Copyright Office's treasury? Maybe, I mean, anybody who can answer that would be welcome to do so, anyone who knows the answer.

Ms. PALLANTE. I would be happy to answer that. I would also like to say, although I don't want to debate section 1201, that the Acting Librarian signed the rule that went out this year that you have referred to after extensive consultation based on a 400-page analysis and a year-and-a-half process. The reasons for all of the exemptions are noted in great detail and also provide the input of the Secretary of Commerce as required by the statute.

With respect to the fees, under the current fee structure we have recommended that the language, which dates back a couple of decades, be adjusted to allow for some apportionment to charge for capital improvements. Yes, it allows us to charge for some inflation and some additional cost, but effectively we are charging for the cost of the service as we are rendering it.

There are other tweaks, whether we can charge in the aggregate and cover cost in the aggregate, et cetera, how we protect small actors versus asking big actors to pay a little bit more. These are bigger policy issues that will require some statutory recommendations from us. The appropriators have asked that we conduct a public process on these issues, which we are in the middle of formulating at the time.

With respect to the reserve, we are asked every year to articulate what we think we will receive in fees. And we base that on our best judgment and calculations. And in a good year we recover more. In a bad year we recover less. When we recover more it goes into our reserve account, which we then draw on for the next budget cycle.

So, for example, in the fiscal year 2017 budget cycle, which we are now putting proposals forward for, some of the things we want to fund, like, for example, making historic records searchable, that have finite cost, are well funded out of a set finite reserve amount of money.

Ms. LOFGREN. Well, it was actually a simple question. What is the amount in the reserve account?

Ms. PALLANTE. What is the amount right at this moment?

Ms. LOFGREN. Right.

Ms. PALLANTE. I wouldn't know. But we have—it is not much. It is under \$5 million normally.

Ms. LOFGREN. I just wondered. I mean, I don't have an agenda here. I just wondered what the amount was. And I would note—

Ms. PALLANTE. We usually estimate within 2- or 3- to \$5 million, we get it right.

Ms. LOFGREN. The fee-setting authority was given in 1997 with the electronic filing pilot program in 2006. So I think if you look at the plain language of the statute, you can charge off. And I am saying this because I don't think the taxpayers ought to be paying for this. When it comes to the Patent Office, the patent applicants pay for everything. There is no taxpayer's money in the patent sys-

tem, and I don't think the taxpayers ought to be subsidizing this either. I think users ought to pay for it.

Ms. PALLANTE. May I respond to that, please?

Ms. LOFGREN. No, because I think this is—my time is over and I am going to yield back. But that is just my opinion, and obviously there is a longer discussion, a philosophical one. But what the taxpayers pay for and what they don't is something that, you know, we need to talk about.

The CHAIRMAN. I thank the gentlelady.

The Chair recognizes the gentleman from Florida, Mr. Nugent.

Mr. NUGENT. Thank you, Madam Chair. I appreciate this hearing. It is a big change from a hearing I just came from with regards to ISIS. So it is actually a pleasure.

But, you know, when I was Chief Executive Officer of a sheriff's office IT would come in and I would sort of glass over in regards to—you know, my big thing was, well, you should just be able to make that work. And I found out it is always not as simple as that.

But my question really goes, obviously there is some angst here, as it relates to the CIO for the Library of Congress, how many subdivisions does that CIO have under its broad authority within the Library of Congress?

Mr. MAO. Well, in part of our realignment process launched earlier this year, where we realigned a lot of divisions across the Library, not just the CIO office, our first draft at that has the CIO sitting above, with various units under, for example, like, development or—off the top of my head I can't think of the exact titles. But then that is the next management layer underneath that.

Are you talking about with respect to the other units specifically, or to the services?

Mr. NUGENT. Well, like with the Register. I mean, what number of subdivisions does the CIO actually control?

Because, Ms. Pallante, you have your own CIO?

Ms. PALLANTE. Yes.

Mr. NUGENT. So how many CIOs does that CIO deal with on a daily basis?

Mr. MAO. I see. I understand your question now.

There are two other CIOs, Chief Information Officers, currently at the Library of Congress. One works currently in the Copyright Office and the other one in the Congressional Research Service.

Mr. NUGENT. Okay. So when the Library of Congress' CIO was interviewed, hired, Ms. Pallante, did you have any input into that?

Ms. PALLANTE. Yes. We had people meet him—meet the two finalists after the fact. Yes, before he was hired.

Mr. NUGENT. Okay. There was an answer given, and you kind of rolled your eyes, as it relates to the CIO today in regards to, I guess, working relationship.

Ms. PALLANTE. No. No. The question that was asked was does he have sufficient authority. I believe that the CIO and the state of best practices for CIOs is that they report to the top of the agency, like I report to the top of the agency. In that way, you have the trust and partnership and same level of leadership that you need to really decide what part of the agency is going to do what.

What I was objecting to, and I think we have discussed internally, is that the CIO does not report to the Librarian, but reports

to a Chief Operating Officer position that was created, which in turn reports to the Deputy Librarian, which reports to the Acting Librarian. I would like to see that addressed. I have been outspoken about that.

Mr. NUGENT. Mr. Mao, do you have a comment in regard? I mean, that makes a lot of sense. When you have all these different bureaucracies in between, I think it then becomes a little more difficult. As the Librarian today, you have to make decisions, and particularly in resources, I would think, how do you do those developmental resources that you have two subdivisions that need help? Would it be easier if that CIO reported directly to you?

Mr. MAO. Well, in our estimation, the way we planned our reorganization or realignment, it was what we considered to be the best structure. And the Chief Operating Officer reports directly to the Librarian of Congress, similar to, as Ms. Pallante was saying, the Register of Copyrights. All of the senior executives, members of the Executive Committee, in purpose all report up to the Librarian of Congress, or in this case the Acting Librarian of Congress. The Chief Information Officer sits on the Executive Committee, along with all of the other senior executives in the Library. As I mentioned, I meet weekly with the Chief Information Officer to discuss issues, and so I make sure that I am aware of what is going on in terms of our challenges and making sure that we are staying on top of what is happening.

Now, that is not to say that changes can't be made. Certainly—

Mr. NUGENT. Well, who makes that decision? Who makes that decision as to the reporting requirements of those department heads?

Mr. MAO. It would be the Librarian. And so when we launched the initial realignment earlier this year, it came from the Librarian's office.

Mr. NUGENT. Which you have now taken over.

Mr. MAO. That I am a part of, yes.

Mr. NUGENT. You are a part of, yes. Would you have any recommendations in the future as to how to go forward to make sure that from a customer standpoint, you know, the Register's office is a customer of yours, as she has customers of that particular subdivision. How do you propose to fix that, to make sure that your customer is getting the proper service in regards to the proper—

Mr. MAO. Well, that is the goal for the Office of the Librarian, which is to make sure that all component parts of the Library of Congress, whether it be the Copyright Office, the Congressional Research Service, the Law Library, are all receiving the support needed so that they can carry out their missions. And that is the goal and that is what we do.

Mr. NUGENT. Okay. Well, I think we have beat that up enough. I appreciate it, Madam Chair. I yield back.

The CHAIRMAN. I thank the gentleman.

The Chair recognizes the gentleman from California, Mr. Vargas.

Mr. VARGAS. Thank you very much, Madam Chair. A pleasure to be here again.

You know, I always measure things in a very basic way: How many complaints do you get versus how many compliments do you get on something. And I have to say the Library of Congress is very

skewed. I get lots and lots of compliments, very few complaints, the truth of the matter. Most people are very, very happy with the Library of Congress and the work they have been doing, and I wanted to say that publicly, because that is certainly what I have experienced. It is not the case with other agencies and other things that we do in government. But certainly with the Library of Congress it has been very skewed on the compliment side. Again, I wanted to say thank you for that.

I also, though, wanted to say this. Madam Chair, when you mentioned the DMV, there was a little thing that went down my spine, and I remember in California we were redoing—I am from California—we were redoing the DMV in our IT processes. And I remember after we spent about \$200 million we gave up on that process and went back to the drawing board. And this was using a lot of those high-tech companies in California that were so expert supposedly on this. So again, the IT can be a real nightmare and I am very conscious about that.

But I was happy to hear from GAO, and I would like to question you a little bit further on this, and I don't want to put words in your mouth, but when I first heard you describe some of your recommendations I thought that you were leaning more on the negative side. Then you used the words tremendous progress were being made, especially in information security. Could you go a little deeper in that? Because, again, I thought that was very positive.

Mr. WILLEMSSEN. In my opening remarks, in the oral statement, I summarized primarily the results of our March report. Since that report, we have found the Library to be very responsive to our recommendations and they have made excellent progress. There is a lot more to do. I think the Library was probably a little overly optimistic in thinking they were going to complete between 12 and 15 recommendations by September 2015. It is going to take a little longer than that, especially to see evidence of the implementation of the recommendations.

Even though it may seem that we are in somewhat of an adversarial position, I feel like we have had a very constructive relationship, that we are all after the same thing, to try to make IT management better. I think along the way we can save some money and make things more efficient, and then also focus on the mission-critical needs of some of the service units like the Copyright Office.

Mr. VARGAS. Excellent. Well, let me ask you a further question then. So you are saying that they have made excellent progress but they were a little overly optimistic. Where do you think the problems are going to come from for this overly optimistic view that they have?

Mr. WILLEMSSEN. Well, I think the reality of this is the central provider of services and service units, they are going to have to reach agreement on who is going to do what. I think that is going to not be an easy process.

Mr. VARGAS. Do you give recommendations for that?

Mr. WILLEMSSEN. We generally do. I mentioned the term commodity IT a little bit earlier, and that is distinct from mission-critical systems like some of the systems that the Register mentioned. Commodity IT includes items such as laptops, cell phones, human resource systems, financial management systems, servers, data

centers. Those are usually within the purview of the Chief Information Officer.

When it comes to mission-critical systems, like replacing eCO and all of its associated systems, the business side needs to take the lead in defining those requirements and then turn it over to IT, whether it is internal or to a contractor, and say, "Here is what I need. Give me your solutions. Tell me what you can give me in return."

Those requirements, that is really with the Register and her team to lay out—this is what we want the new system and the new process to look like. For example, this is what kind of availability, what kind of security, what kind of performance we want it to have.

Mr. VARGAS. Okay. Well, again, I don't want to put words in your mouth, but I think you said that you had a very constructive relationship with them. So I hope that constructive relationship continues and you give some guidance on these issues.

Mr. WILLEMSSEN. That is just my view. I am not speaking for the other two witnesses here.

Mr. VARGAS. I don't see them jumping up and saying no, so I will take that as an affirmation.

And lastly, again, I would say that I appreciate the work that the Library does. I personally have been very, very impressed with the work.

And, again, thank you, Madam Chair. I appreciate the time.

The CHAIRMAN. Thank you.

The Chair recognizes Mr. Davis, from Illinois.

Mr. DAVIS. Thank you, Madam Chairman.

I will not follow up my colleague's question to get a response from you about working together with Mr. Willemssen. I too assume that you guys have a great working relationship.

It is also interesting to note that most of the discussion here centers upon the Federal Government's inability to develop better IT practices. You are certainly not the only one that is affected by this in the Federal Government. And I think we do need to shine a light and make it a little more noticeable and put better practices in place.

And, Ms. Pallante, I would like to mention, you know, obviously one of the key issues for you and for us is ensuring public availability of the records that you are tasked with keeping. And I know there is much more work to be done to put that modern technological infrastructure in place. And I do believe from some of the comments we heard today that, and most of you will agree too, the government is not the only entity that can fix this problem.

And without objection, I would like to ask unanimous consent to submit a statement from the Internet Archive into the record.

The CHAIRMAN. So ordered.

Mr. DAVIS. Thank you very much, Madam Chairman.

I would like you to take a look at this if you have not yet seen it, some of their recommendations that can help maybe make some progress in what we are discussing here today.

But my first question, Ms. Pallante, are you looking at any private resources or capabilities to fill the gaps in services or areas that the Copyright Office cannot support at this time?

Ms. PALLANTE. Absolutely.

Mr. DAVIS. You leveraged some of these resources?

Ms. PALLANTE. Yes. Copyright law is incredibly intertwined with technology. Copyright law has traced technology since 1790, right, from the printing press to our iPhones. So the entire copyright ecosystem that we serve are already technology experts. That stakeholder group we would like to have more involvement in the underlying systems that serve them.

So I guess, going back in time, what I would suggest probably was a mistake is not putting out the IT plan that has so fundamentally affected our customers, right? There is nothing that the Copyright Office does that isn't a public process. We operate under the APA. We have to. Courts, you know, have to rely on our opinions, et cetera.

So, oddly, the operational infrastructure that is under the entire act of copyright administration was an agency decision internal. And, again, I think for us to be able to have technology advisory committees, to be able to have flexible Federal contracting, that we—again, another service that we get from the mothership but which hasn't worked that well for us—we need much better support in those areas. We need to be able to have short-term and long-time hires, both, to have state-of-the-art expertise. We need to be able to have interoperability between private sector standards and government sectors, otherwise copyright law won't work. So all of that is in our plan.

Mr. DAVIS. So that is in your plan. I like the connotation of the mothership. I haven't heard that in many hearings. It is interesting to get it on your side rather than our side.

I appreciate your candor. And I know you have made recommendations in your testimony, you have made recommendations just now. What question haven't we asked you that you feel needs to be answered that can get us to the point where you come in and sit at that table and talk to us about the IT successes and talk to us about how eCO or the next generation of eCO is working well?

Ms. PALLANTE. Well, thank you for that question. The question you haven't asked me is—I guess the question I would ask you is why should our copyright customers feel satisfied by a renewed commitment to the same central process that just failed us so miserably?

What we are asking for is the autonomy to make sure that IT is intertwined with our business and legal expertise. Quite frankly, even if Bud Barton, who is tremendous, and Doug Ament, my CIO, can agree that ITS, which is the Library's IT department, will be more responsive, will have better staff, they are still serving seven departments that have nothing to do with the Copyright Office. They are Library departments. It is a very different mission.

And it is really odd to me as the Register that everybody reports through the Register's office, the general counsel, the policy experts, the registration experts, the recordation, all the business experts, except the IT, which is somewhere else reporting to someone else.

And so how do we train them in mission? How do we keep them integrated so that that it is not separated? Because it is not only that it hasn't worked well, it has been a failure, a complete failure. And so that just can't work in the future. I don't see any way it is going to work.

Mr. DAVIS. Well, thank you. I look forward to working with all three of you to work with you toward those successes. So thank you.

I yield back.

The CHAIRMAN. I thank the gentleman.

The Chair recognizes Mrs. Comstock.

Mrs. COMSTOCK. Thank you, Madam Chairman.

I too, like Mr. Vargas, appreciate the great work of the Library of Congress. I am the daughter of a librarian, so I love my libraries and appreciate all the things we are doing there.

But I am sort of baffled by the sort of the antiquated, I think you called it, Ms. Pallante, the 19th century system that we have here. And, you know, I noted in your testimony you talked about how really it was always intended to be separate, and instead of having that autonomy that you need to do your job, we have made it more top-down, mothership kind of orientation, which is sort of against everything we are all doing these days. The reason we all have our own personal phones and things is we still like having flexibility whenever our needs demand.

So I am very interested in making sure, given the important economic driver that you are having, I think there are two very different missions here. The Library of Congress is our history, it is Thomas Jefferson. I am from Virginia, I love our Library. But you are very tied to this huge international economy. And the idea that for 9 days you were down, I just am baffled as to—I mean, 9 hours I would be tearing my hair out. Nine minutes, most of us would be demanding answers. So for 9 days, that just is clearly a system that is not working.

So I just wanted to maybe expound a little bit more upon how we can make what I think is an outmoded and inefficient system for you work so that we make sure this important economic driver in our economy is going to be maximized to the need, as it should be, and what maybe legislative changes or anything we might need to do to make sure you are making the most of this great economic driver in our economy.

Ms. PALLANTE. Thank you so much for that. I think that the Copyright Office wants a long-term relationship with this committee. We want to be able to put forward suggestions for all kind of things on operations.

But the area where we really disagree, the Copyright Office and the Library, and it was referenced by my colleague and boss David Mao, is in duplication of IT services. So that is designed—and, again, putting aside the conflation of the two missions over time, which was really done for operational savings and goes, I think, against the reason that Congress created the office.

The duplication of services can't mean that there is only one CIO, that that CIO makes all decisions with respect to the national copyright system, because de facto IT will affect the outcome of the

system. And it can't mean that we can't develop our own staff of technology experts on data to work in our business units.

I, frankly, think about a third of our staff has to morph into tech and data expertise. It used to be cataloguers. Now it needs to be technology and data. I don't know how we can administer the law without it.

And so when you are looking at duplication of IT and you are trying to save money, don't do it at the expense of the copyright system. And I think that is really where the real tension is.

Mrs. COMSTOCK. Thank you. And I yield back.

The CHAIRMAN. The Chair recognizes Mr. Walker.

Mr. WALKER. Thank you, Madam Chairwoman. A pleasure to be here today.

I would say that one of the great advocates that you have in Congress on the Library of Congress is Representative Gregg Harper. I know he just stepped out. But he loves you guys. He is always talking well and always advocating on your behalf. So a little kudos for the work to Representative Harper on that.

Obviously, we have got to get to the 21st century when it comes to technology. We can't be keeping score with an abacus anymore. Obviously, with the cyber threats and some of the things that we are seeing, serving on Homeland Security and some of the other committees that I have a role, and it is specifically going after some of the things that we are seeing, whether it is state sponsored, whether they are criminally driven, whatever it might be. And I think we have got to do a much better job long term on it.

A couple questions that I have. Let me start with Mr. Mao, if I could, please.

According to the GAO's report, apparently the Library did not know how much it was spending on IT. Can you tell me what is the Library doing to make sure that is clearly communicated? I think it is a very important point.

Mr. MAO. Yes. And so we have instituted some processes this year that we have just started with this current fiscal year, 2016, to make sure that we can track our investment expenditures. And we are going to continue to develop that so that we can continue to have a better handle on what our investment expenditures are going forward.

Now, that said, we are also working with the Library's Inspector General and working on identifying better ways for us to further refine the categories in our financial management system so that we can better track some of those.

Mr. WALKER. You agree, you see why that is important, I would imagine, you see why that is important for people to know that you guys are confident in knowing how much money is going in there. Is that something that—

Mr. MAO. Yes, indeed.

Mr. WALKER. Okay. Your confidence level in the Library's ability to monitor its systems and protect itself against external threats. One challenge I was reading and the GAO noted in its report was the Library had not conducted complete security testing, stating that the Library had installed continuous monitoring, but that guidance to service units on how out this policy and regularly carrying out the testing had not always occurred. Can you speak to

that and maybe to any improvements the Library has made specifically in that realm?

Mr. MAO. Yes. And since that recommendation has come out we have indeed moved forward with training staff, for example, that you mentioned, so that we ensure that they understand what the policies are and what it is that they must do to ensure the safety—

Mr. WALKER. Kind of working together. Just having the information and knowing what to do with it is very important.

Mr. MAO. Yes.

Mr. WALKER. Okay. Thank you, Mr. Mao.

Ms. Pallante, I noticed that some of the records from the Copyright Office are still in paper form. I don't know if you could put an exact number, but what would the value be if this information was maybe taken from paper form and put into digital form? I would imagine some of this is very important documents.

Ms. PALLANTE. Yeah. Well, there are two pieces to that. The value, to answer your question, would be enormous to the economy, to culture, to research.

Mr. WALKER. Can you try that mic again one more time?

Ms. PALLANTE. The value would be enormous, to the economy, to culture, to research. There are two pieces, though. One is historic records that stop in 1978. Those are plausibly important to commerce, but they are old, right? They are much more interesting for statistical research and following trends and identifying data rights.

The piece that is still paper that is unforgivable is that the recordation system itself, the process where you come as a company or an international business and record your security interest, or your copyright interest in major motion pictures, or in software, that is still paper-based, which means that people submit it—we have moved now to thumb drives—staff then retype it. Then there is a verification activity. And that needs to be automated.

We have done two major reports on that. And the question is, who is going to bring it online? Who is going to have the investments? Where are those going to be directed, to the Library or to the Copyright Office in some kind of partnership? How is it going to work?

Mr. WALKER. That is a great question. Thank you, Ms. Pallante. With that, Madam Chair, I yield back.

The CHAIRMAN. I thank the gentleman.

I thank all the witnesses for being here today. This Committee hasn't had a hearing on the copyright for quite some time, but certainly the GAO report sparked everybody's interest and attention. You can see by the participation that we have had here today that there is a great amount of interest from this Committee and a huge reservoir of good will toward the Library from every Member of Congress, certainly every member on this Committee as well.

On the other hand, one of my favorite sayings is the largest room is the room for improvement. We have a very large room for improvement, particularly with IT for the Copyright Office. I think especially when you think of what a critical component it is, an impetus for the economy, goodness.

So I hope you will look at this Committee as a vehicle to help resource you and help advocate for what you need to be able to do there and not wait for us to ask the question. Please feel free to come forward with recommendations that you have on the kinds of challenges that you are facing and what you need. Just because you don't hear from us, or because we have a hearing, let's face it, we probably didn't ask you all the questions you thought you were going to get asked. We asked ones that you never thought you were going to get asked maybe. So if we didn't ask the right question, let us know about that.

Without objection, all Members will have 5 legislative days to submit to the Chair additional written questions for the witnesses that they might have that we will forward and ask you to respond, because I am sure all of us will have some.

[The information follows:]

CANDICE S. MILLER, MICHIGAN
CHAIRMAN

GREGG HARPER, MISSISSIPPI
RICH NUGENT, FLORIDA
RODNEY DAVIS, ILLINOIS
BARBARA COMSTOCK, VIRGINIA
MARK WALKER, NORTH CAROLINA

SEAN MORAN, STAFF DIRECTOR

Congress of the United States

House of Representatives

COMMITTEE ON HOUSE ADMINISTRATION

1309 Longworth House Office Building

Washington, D.C. 20515-6157

(202) 225-8281

<http://cha.house.gov>

ROBERT A. BRADY, PENNSYLVANIA
RANKING MINORITY MEMBER

ZOE LOFGREN, CALIFORNIA
JUAN VARGAS, CALIFORNIA

ONE HUNDRED FOURTEENTH
CONGRESS

JAMIE FLEET, MINORITY STAFF DIRECTOR

February 1, 2016

David S. Mao
Acting Librarian of Congress
The Library of Congress
101 Independence Ave. SE
Washington, D.C. 20540

Dear Acting Librarian Mao,

Thank you for testifying during the Committee on House Administration's December 2, 2015 Hearing on Improving Customer Service for the Copyright Community. The Committee requests you respond to additional questions that will be made part of the hearing record. Please provide your responses to the following questions to the Legislative Clerk, C. Maggie Moore (Maggie.Moore@mail.house.gov) with the Committee by **March 7, 2016**.

1. What progress is being made on service-level agreements between the Office of the CIO and the service units that clearly identify what is needed for core Library IT infrastructure, as well as mission-specific needs and capabilities? Is there agreement on what will be provided by each party?
2. Some have suggested that Copyright data was at risk during the August/September outage. How many copies of this data does the Library maintain and in what form? How secure is that information, both from external threats, as well as from system failures?
3. Please provide an update on the status of GAO recommendations contained in the March 2015 review of Library IT systems and governance.
4. Is the ACF now capable of supporting the business critical IT systems of the Library? Please identify which systems could be run from the ACF if a critical event occurred today in the Madison building. If any of the capabilities or capacity of these systems would be unavailable please document these limitations.
5. Would there be benefit for the Library of Congress in participating in a combined off-site data facility for the Legislative Branch? What are the advantages and disadvantages compared to the current facility in the Madison building?

If you have any questions concerning this matter, please feel free to contact Brad Walvort on the Committee Staff at (202) 225-8281. Thank you again for your testimony. We look forward to hearing from you.

Sincerely,

A handwritten signature in black ink that reads "Candice S. Miller". The signature is written in a cursive, flowing style.

Candice S. Miller
Chairman



THE LIBRARIAN OF CONGRESS

March 7, 2016

The Honorable Candice S. Miller
Chairman
Committee on House Administration
U.S. House of Representatives
1309 Longworth House Office Building
Washington, DC 20515

The Honorable Robert A. Brady
Ranking Member
Committee on House Administration
U.S. House of Representatives
1307 Longworth House Office Building
Washington, DC 20515

Dear Chairman Miller and Ranking Member Brady:

Pursuant to the Committee's request of February 1, 2016, I enclose my responses to additional questions that will be made part of the hearing record for the Committee's December 2, 2015 hearing on Improving Customer Service for the Copyright Community.

Please let me know if you need further information.

Sincerely,

David S. Mao
Acting Librarian of Congress

Enclosure

Cc: Maria A. Pallante
United States Register of Copyrights

Library of Congress Responses to Additional Questions for the Record

1. **What progress is being made on service-level agreements between the Office of the CIO and the service units that clearly identify what is needed for core Library IT infrastructure, as well as mission-specific needs and capabilities? Is there agreement on what will be provided by each party?**

The Library of Congress CIO has proceeded with a phased approach to execute service level agreements (SLAs) with service units. Implemented in October 2015, phase one SLAs focused on commodity type, core services. Phase two, which began in January 2016, involves the creation of individual Memoranda of Understanding (MOUs) designed to satisfy service unit mission-specific IT requirements not covered by the SLAs. The MOUs provide a framework for identification of technology and service expectations between the service units and the Office of the Chief Information Officer (OCIO). These MOUs will promote communication and understanding of the level of services to be provided by the OCIO. Because this process involves a new collaborative approach working with the service units on their mission-specific needs, we anticipate the MOUs will be completed by June 1, 2016.

SLA's will be reviewed with the service units semi-annually in fiscal 2016, and annually thereafter. MOU's will be reviewed annually or as needed.

In concert with creating the Service Units MOUs, the OCIO also launched a project designed to completely overhaul its IT Service Catalog. This project will result in the delivery of a modern service catalog modeled on best practices that displays IT services, descriptions, and service targets. In the future, all service units will be able to select hardware, software, and service needs from the catalog. Any needs not covered by existing catalog options will be covered by future MOUs.

Finally, the OCIO continues to promote collegial and productive relationships at multiple levels of management and staff between the OCIO and the service units.

2. **Some have suggested that Copyright data was at risk during the August/September outage. How many copies of this data does the Library maintain and in what form? How secure is that information, both from external threats, as well as from system failures?**

The OCIO does not believe that copyright data was at risk during the August-September outage. The Library has asked the Office of the Inspector General to examine whether proper controls were in place and followed to preserve the integrity of system data.

How many copies of this data does the Library maintain and in what form?

There are four copies of the eCO data at all times. The Copyright eCo storage array in the Library's primary computing facility (PCF) automatically and synchronously replicates data to a backup array at the alternate computing facility (ACF). This configuration ensures there are two copies of active Copyright data at all times. Additionally, there are tape backup procedures for the Copyright eCO data at the PCF as outlined below. These tapes are replicated to tapes at the ACF to ensure two copies of the backup are maintained.

- Daily changes (deltas) are written to tape backup. These tapes are saved until the next weekly backup.
- Full backups of active Copyright eCO data are written weekly. These tapes are saved until the next monthly backup.
- Full backups of active Copyright eCO data are written monthly. These tapes are saved for at least one year.
- Full backups of static Copyright eCO files and systems are made quarterly.

How secure is that information, both from external threats, as well as from system failures?

The Copyright system, eCO, resides on hardware provided and maintained by the OCIO. The Library's Security Operations Center (SOC) and Focus Operations group constantly monitor all Library systems for signs of intrusions, and add signatures and rules to prevent attacks. The Focused Operations group performs intelligence gathering activities with the specific intention of enhancing detection and response efforts to advanced threats. The OCIO has also improved capabilities for detecting threats through the implementation of a virtual SOC with new security monitoring products and managed services. The Library's virtual SOC provider is the same provider as many of the other Legislative Branch agencies, including the House of Representatives.

The OCIO and the Copyright Office have worked to ensure that eCO is scanned monthly as part of the Library's continuous monitoring program implemented in 2015. This is a requirement based on National Institute of Standards Technology (NIST) guidance and an industry best practice.

With the data provided by automated tools such as Security Analytics and the Nessus Security Center, the OCIO will be implementing additional functionality by Q4 fiscal 2016 that will enhance identification of external and internal vulnerabilities. Additionally, it will provide the ability to both simulate and conduct live penetration tests of the Library's networks.

3. Please provide an update on the status of GAO recommendations contained in the March 2015 review of Library IT systems and governance.

Attached is a tracking spreadsheet with updated status for each of the GAO recommendations.

4. Is the ACF now capable of supporting the business critical IT systems of the Library? Please identify which systems could be run from the ACF if a critical event occurred today in the Madison building. If any of the capabilities or capacity of these systems would be unavailable please document these limitations.

Since the August/September 2015 outage, the OCIO has worked to identify and address needed improvements at the ACF. Multiple hardware, networking, and security improvements have or are in the process of being implemented. Though further work and testing is required, we have reasonable assurance that the hardware, software, and network infrastructure necessary to make these systems available at the ACF has been implemented.

Like the Library's PCF, our ACF is classified as a Tier I: Basic Capacity data center under the Uptime Institute's rating system. Tier I infrastructure includes a dedicated space for IT systems; an uninterruptible power supply (UPS) to filter power spikes, sags, and momentary outages; and dedicated cooling equipment. For its recovery mission, the ACF would optimally operate from a Tier III: Concurrently Maintainable data center; Tier III configurations include redundant critical power and cooling paths and components so that each and every component needed to support the IT processing environment can be shut down and maintained without impact on the IT operation. Any configuration at less than Tier III classification presents inherent risks to our ability to run critical business systems.

The ACF currently supports the following business critical systems at the Library.

Congress.gov
CRS.gov
Electronic Copyright System (eCO)
Law Library Management Information System (LLMIS)
Law Library Critical Data
Legislative Information System (LIS)
Medical Information Management System (MIMS)
Momentum Financial System
System Management Information network (SYMIN) II
WebTA

The Library has also requested the Office of the Inspector General (OIG) to perform a review to determine the Library's infrastructure maturity for its critical systems and assess the Library's technology and processes to provide high availability of those systems. This review includes benchmarking the Library's current server and data center configurations that support critical systems against best practices and industry standards. In response to the OCIO request, the OIG has contracted with its consulting partner, HMS Technologies, Inc., to assist in conducting the assessment. The assessment is expected to be completed by the end of the second quarter, fiscal 2016.

Specific capabilities or capacity limitations of the support of these systems at the ACF are documented below.

Manual Effort to Failover

When created, the ACF was implemented as a "warm" disaster recovery site for the Library. As such, the ACF was architected to provide the technical capability (hardware, software, and connectivity) to support a recovery time objective (RTO) for the Library's *critical* IT systems of 24-72 hours. The ACF was not designed for instantaneous or automatic failover of those critical IT systems, and configuration changes must be manually implemented once the ACF has been activated in order to make critical IT systems available for general use. Since the ACF was designed, the Library has developed several additional critical systems; it is now not known whether the ACF could support *all* Library operations simultaneously in the event of an extended disruption to the PCF. The OCIO, in conjunction with Library leadership, evaluates

the Library's disaster recovery requirements on an ongoing basis, and works to adjust its capabilities accordingly within resource constraints.

Testing

Additional testing is required to determine if all critical systems could simultaneously run out of the ACF. The OCIO will be working in conjunction with the owners of critical IT systems to ensure that technical testing is performed in the next 24 months. Existing internet (speed and priority), wide area network fiber connections (capacity and performance), and firewall infrastructure must be further tested to determine the capacity for Library critical IT systems to operate out of the ACF for an extended period of time.

Other Issues for Consideration

Update on ACF IT Security Infrastructure: the OCIO committed funding in the fourth quarter, fiscal 2015 and submitted procurements required to enhance IT security at the ACF to support emergency operations. The equipment has been installed and is currently being configured to ensure proper visibility throughout the ACF network is secure.

Recovery Procedures Documentation: the Library's recovery procedures for critical IT systems require updating and additional documentation. The Library has an effort underway to fully document the procedures required to recover all critical IT systems at the ACF.

5. Would there be benefit for the Library of Congress in participating in a combined off-site data facility for the Legislative Branch? What are the advantages and disadvantages compared to the current facility in the Madison building?

There would be benefit for the Library to participate in an off-site data facility. In its fiscal 2017 budget request to Congress, the Library is requesting \$24.575 million and three-year funding authority for the first year of a three-year investment of \$57.7 million to migrate the Library's Primary Computing Facility to a new Legislative Branch primary computing facility. The Library sees many advantages in moving to this offsite facility, including:

- The proposed Legislative Branch facility is being built as a Tier III data center with ample power and cooling. This is significant improvement from the current PCF and ACF.
- The proposed Legislative Branch facility is being built specifically for Legislative Branch agency requirements.
- The proposed Legislative Branch facility will provide additional protection to critical business systems as well as the Library's digital collections due to the greater distance from Capitol Hill. The additional distance would further protect the data from natural disasters and terrorist attacks.
- The Library and other Legislative Branch Agencies would benefit through the consolidation of the primary CAPNET network connections between the agencies being within one building, similar to the CAPNET configuration at the ACF.
- The new facility will provide centralized planning and standardization of facility design (floor space, power, HVAC, cabling) which will allow faster and more uniform deployment and upgrades of equipment within a shared data center.

If the Library cannot migrate computing and data resources to shared facilities or externally-hosted services away from the James Madison Memorial Building (JMMB) PCF, the Library's IT capabilities and equipment will continue to be at risk from aging and inadequate data center facilities, including:

- Failure of the Capitol Hill cooling facility to supply adequate cold air to the JMMB Data Center and related failure of the aging Computer Room Air Conditioning (CRAC) units;
- Annual shut down of the Primary Data Center for the AOC-managed Life and Safety check, putting all Data Center equipment at higher risk of failure;
- Generator failure during a general Capitol Hill electrical brown or black out;
- Lack of cost-effective capacity growth for power and cooling requirements;
- Downtime due to inadequate capacity for complete redundancy for all infrastructure services in the current facility.

Library of Congress
Progress Update on GAO Recommendations

GAO Audit Recommendation #	Recommendation	Status	Expected Date LOC will provide to GAO for Validation
1	That the Librarian expeditiously hire a permanent chief information officer responsible for managing the Library's IT and ensure that this official has clearly defined responsibilities and adequate authority, consistent with the role of a chief information officer as defined by best practice. The should include among other things, (1) responsibility for commodity IT; (2) oversight of mission-specific systems, through the ITSC or another oversight mechanism; and (3) clarification of responsibilities and authorities between the Library CIO and service unit IT leadership.	Ongoing	Q1 FY2017
2	Complete an Information Technology strategic plan within the time frame the Library has established for doing so. The plan, at a minimum, should (1) align with the agency's overall Strategic Plan, (2) provide results-oriented goals and performance measures, (3) identify the strategies for achieving the desired results, and (4) describe interdependencies among projects.	LOC Completed pending GAO Validation	Q3 FY2016
3	Establish a time frame for developing a complete and reliable enterprise architecture that accurately captures the Library's current information technology environment, describes its target environment, outlines a strategy for transitioning from one to the other, and develops the architecture within the established time frame.	Ongoing	Q4 FY2018
4	Establish a time frame for implementing a Library-wide assessment of information technology human capital needs and complete the assessment within the established time frame. This assessment should, at a minimum, analyze any gaps between current skills and future needs and include a strategy for closing any identified gaps.	Ongoing	Q1 FY2018
5	Clarify investment management policy to identify which governance bodies are responsible for making investment decisions and under what conditions.	Ongoing	Q1 FY2017
6	Establish and implement a process for linking information technology strategic planning, enterprise architecture, and information technology investment management.	Ongoing	Q1 FY2018
7	Establish and implement policies and procedures for reselecting investments that are already operational.	Ongoing	Q4 FY2018
8	Establish and implement policies and procedures for ensuring that investment selection decisions have an impact on decisions to fund investments.	Ongoing	Q4 FY2018
9	Ensure that appropriate governance bodies review all investments that meet defined criteria.	Ongoing	Q1 FY2018
10	Require investments in development to submit complete investment data (i.e., cost and schedule variances and risk management data) in quarterly reports submitted to the Information Technology Steering Committee.	Ongoing	Q1 FY2018
11	Fully establish and implement policies to include guidance for Service Units on classifying expenditures as information technology, for maintaining a full accounting of the Library's information-technology-related expenditures.	Ongoing	Q1 FY2018
12	Fully establish and implement policies for developing a comprehensive inventory of information technology assets.	Ongoing	Q3 FY2017
13	Implement policies and procedures for conducting post-implementation reviews of investments.	LOC Completed pending GAO Validation	Q1 FY2016
14	Fully establish and implement policies and procedures consistent with the key practices on portfolio management, including (1) defining the portfolio criteria, (2) creating the portfolio, and (3) evaluating the portfolio.	Ongoing	Q1 FY2018

Library of Congress
Progress Update on GAO Recommendations

GAO Audit Recommendation #	Recommendation	Status	Expected Date LOC will provide to GAO for Validation
15	Complete and implement an organization-wide policy for risk management that includes key practices as discussed in this report and within the time frame the Library established for doing so.	Ongoing	Q1 FY2018
16	Establish and implement an organization-wide policy for requirements development that includes key practices as discussed in this report.	Ongoing	Q1 FY2018
17	Establish and implement an organization-wide policy for developing cost estimates that includes key practices as discussed in this report.	Ongoing	Q1 FY2018
18	Establish a time frame for finalizing and implementing an organization-wide policy for developing and maintaining project schedules that include key practices as discussed in this report and finalize and implement the policy within the established time frame.	Ongoing	Q1 FY2018
19	Develop a complete and accurate inventory of the agency's information systems.	Ongoing	Q4 FY2016
20	Revise information security policy to require system security plans to describe common controls and implement the policy.	Ongoing	Q1 FY2017
21	Ensure that all system security plans are complete, including descriptions of how security controls are implemented and justifications for why controls are not applied.	Ongoing	Q4 FY2016
22	Conduct comprehensive and effective security testing for all systems within the time frames called for by Library policy, including assessing security controls that are inherited from the Library's information security program.	Ongoing	Q4 FY2017
23	Ensure that remedial action plans for identified security weaknesses are consistently documented, tracked, and completed in a timely manner.	Ongoing	Q4 FY2016
24	Finalize and implement guidance on continuous monitoring to ensure that officials are informed when making authorization decisions about the risks associated with the operations of the Library's systems.	LOC Completed pending GAO Validation	Q3 FY2017
25	Develop contingency plans for all systems that address key elements.	Ongoing	Q4 FY2018
26	Establish and implement a process for comprehensively identifying and tracking whether all personnel with access to Library systems have taken required security and privacy training.	Ongoing	Q1 FY2017
27	Establish a time frame for finalizing and implementing the Library's standard contract sections for information security and privacy requirements and finalize and implement the requirements within that time frame.	LOC Completed pending GAO Validation	Q1 FY2016
28	Require the chief privacy officer to establish and implement a process for reviewing the Library's privacy program, including ensuring that privacy impact assessments are conducted for all information systems.	Ongoing	Q4 FY2016
29	Finalize and implement a Library-wide policy for developing service level agreements (SLAs) that (1) includes service-level targets for agreements with individual Service Units, and (2) covers services in a way that best meets the need of both Information technology and its customers, including individual Service Units.	Ongoing	Q4 FY2018
30	Document and execute a plan for improving customer satisfaction with information technology services that includes prioritized improvement projects and associated resource requirements, schedules, and measurable goals and outcomes.	Ongoing	Q4 FY2018
31	Conduct a review of the Library's information technology portfolio to identify duplicative or overlapping activities and investments, including those identified in our report, and assess the costs and benefits of consolidating identified information technology activities and investments.	Ongoing	Q3 FY2017

CANDICE S. MILLER, MICHIGAN
CHAIRMAN

GREGG HARPER, MISSISSIPPI
RICH NUGENT, FLORIDA
RODNEY DAVIS, ILLINOIS
BARBARA COMSTOCK, VIRGINIA
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SEAN MORAN, STAFF DIRECTOR

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ROBERT A. BRADY, PENNSYLVANIA
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JUAN VARGAS, CALIFORNIA

ONE HUNDRED FOURTEENTH
CONGRESS

JAMIE FLEET, MINORITY STAFF DIRECTOR

February 1, 2016

Maria A. Pallante
Register of Copyrights
The Library of Congress
101 Independence Ave. SE
Washington, D.C. 20540

Dear Register Pallante,

Thank you for testifying during the Committee on House Administration's December 2, 2015 Hearing on Improving Customer Service for the Copyright Community. The Committee requests you respond to additional questions that will be made part of the hearing record. Please provide your responses to the following questions to the Legislative Clerk, C. Maggie Moore (Maggie.Moore@mail.house.gov) with the Committee by **March 7, 2016**.

Questions from the Majority:

1. During this year's scheduled annual maintenance on the Madison building, most of the Library's IT systems were not available, including the Electronic Copyright Office (eCO) system. What was your understanding of the capabilities of the Alternate Computer Facility (ACF) to support the needs of the Copyright Office? Please document any communications in which you or the Copyright CIO expressed concerns or requirements for a more robust availability strategy prior to the outage.
2. Have you previously or since the 2015 Outage visited the LOC alternative computer facility? How would you assess its ability to meet the needs of the Copyright Office?
3. Are you looking at any private resources or capabilities to fill gaps in services or areas that the Copyright Office cannot support at this time? How could the Copyright Office leverage outside expertise to address your challenges?
4. Please identify IT needs that are not currently being met by the LOC. If the Copyright Office was permitted to seek IT services outside of the LOC, what capabilities would you prioritize first? Furthermore, are there innovative vendors or government providers that could provide the required solutions in a shorter timeframe such as GSA's 18F? If so, what changes in LOC policies and regulations would be required for you to take beneficial use of such innovative capabilities?
5. How has the Library and your office responded to prevent another major outage such as occurred in August/September of 2015? Have you completed a formal Service Level

Agreement (SLA) with the Library to document your availability requirements for your key IT systems? What, if any, are the outstanding actions to prevent another outage and the status of these actions?

6. A complete solution for the Copyright Office could involve private-public partnerships. Have you looked at creating an open computer Application Programming Interface (API) so that appropriate functionality would be available to the public, non-profits or the private sector? What capabilities should this encompass?
7. Some of the records of the Copyright Office remain in paper form. What would the value be to the public if this information was correctly digitized and made available on-line? Would it be worth the cost and what cost estimates do you have to digitize the current paper records? Have you considered offers from non-profits to perform this task using crowd sourcing or other public-involvement strategies?
8. In a March 23rd, 2015 letter to Ranking Member Conyers you submitted testimony advocating for The Copyright Office to be independent of the Library of Congress. Please provide the Committee with copies of any and all communications sent by the Office of the Register on official or unofficial email or correspondence, in which you suggest, advocate or discuss a Copyright Office independent of the Library of Congress. Exclude any legally protected communications with Members of Congress and their staffs.
9. Please provide the Committee with the time and date of meetings with the Librarian, Acting Librarian, Library CIO or other LOC leadership in which you or the Copyright Office CIO discussed Office of Register of Copyrights computer or technology needs since January 1, 2014.
10. Please provide to the Committee the detailed plan on necessary IT upgrades, a cost estimate for the full modernization effort, and a funding strategy with a time frame for completion. The expectation is that the requirements set forth in House Report 114-110 will formalize a plan that all stakeholders can work from to ensure that funds are being used effectively.

Questions from the Minority:

11. What are the details of the hiring process at the Copyright Office (Copyright)?
12. What are the current staffing levels? How many FTEs is Copyright currently authorized to employ? How many FTEs does Copyright currently employ?
13. What is the organizational structure of Copyright?
14. What is the size of your personal staff?
15. Who makes up the Copyright senior staff? What are their credentials and qualifications?
16. How much travel is required of the Register? Please list any travel performed in your official capacity including destination, duration, and total cost.

17. How much travel is required of Copyright's senior staff? Please list any travel performed in their official capacity including destination, duration, and total cost.
18. To what extent do you consult and interact with members of any bargaining unit within Copyright?
19. How are application fees determined? How much authority does the Register have when determining fees?
20. In your opinion, is Copyright in a better or worse situation than when you were appointed Register?
21. How do you balance the various roles Copyright plays with respect to the size and varied interests of its stakeholder community?
22. In your plan to modernize Copyright, is job loss expected and if so, in what areas?
23. If Copyright did end up as an independent agency, what impact would that have on the copyright customer base during the transition period?
24. In FY 2015 Copyright transferred to the Library of Congress over 600,000 items worth approximately 30 million dollars. If Copyright becomes an independent agency, how will its deposit material be made available to the Library of Congress?
25. The Library acquires most of its "best edition" copies through copyright registration. If Copyright moves to only require an "examination copy", what would be the impact on the Library of Congress collections and its mission to serve the American people and Congress?
26. What are the shared interests between Copyright and the Library of Congress? How could they be improved?
27. What services besides IT are currently provided by the Library of Congress to Copyright?
28. Under acting Librarian David Mao and new CIO Bud Barton, work has begun to address the many IT issues detailed in the 2015 GAO reports. What coordinated steps are being taken by Copyright and the Library to remedy technology issues?
29. How would you characterize the cooperation between Copyright and the Library of Congress in all facets of operations, not just with regard to IT?
30. You have stated that Copyright is constrained because it cannot retain and use all of its revenue and receipts. If Copyright had autonomy over its funds and spending, how would it impact your appropriation?
31. In 2007, Copyright moved from its paper-based registration process to the eCO system. You have testified that eCO is antiquated. Please tell us:

- A. What new system is required to modernize current business areas, specifically registration and recordation? What will it cost?
- B. Assuming adequate funding, how long do you estimate it will take to design, build, and test a new system?
- C. In Copyright and in the Library of Congress, how many technology staff currently support eCO? How many full-time technology staff would be required to support and maintain a new system?
- D. How will you ensure that the same mistakes are not repeated when you build the next system?
- E. How do you plan to keep pace with rapidly changing technology and customer demands?

If you have any questions concerning this matter, please feel free to contact Brad Walvort on the Committee Staff at (202) 225-8281. Thank you again for your testimony. We look forward to hearing from you.

Sincerely,

A handwritten signature in black ink that reads "Candice S. Miller". The signature is fluid and cursive, with the first letters of each word being capitalized and prominent.

Candice S. Miller
Chairman



The Register of Copyrights of the United States of America
United States Copyright Office · 101 Independence Avenue SE · Washington, DC 20559-6000 · (202) 707-8350

March 7, 2016

The Honorable Candice S. Miller
Chairman
Committee on House Administration
U.S. House of Representatives
1309 Longworth House Office Building
Washington, D.C. 20515

The Honorable Robert A. Brady
Ranking Member
Committee on House Administration
U.S. House of Representatives
1307 Longworth House Office Building
Washington, D.C. 20515

Re: Questions for the Record Regarding the December 2, 2015 Hearing
Improving Customer Service for the Copyright Community

Dear Chairman Miller and Ranking Member Brady:

As requested, please find enclosed the written responses to your February 1, 2016 letter containing questions for the record for the above-referenced hearing. In addition, we include several documents that provide relevant information.

Respectfully submitted,

Maria A. Pallante
Register of Copyrights and Director
U.S. Copyright Office

Enclosures

cc: David S. Mao
Acting Librarian of Congress

U.S. COPYRIGHT OFFICE
Library of Congress
Responses to Questions for the Record Regarding December 2, 2015 Hearing
March 7, 2016

Committee on House Administration
United States House of Representatives

Questions from the Majority

- 1. During this year's scheduled annual maintenance on the Madison building, most of the Library's IT systems were not available, including the Electronic Copyright Office (eCO) system. What was your understanding of the capabilities of the Alternate Computer Facility (ACF) to support the needs of the Copyright Office? Please document any communications in which you or the Copyright CIO expressed concerns or requirements for a more robust availability strategy prior to the outage.**

The Copyright Office relies on the Library's ACF as a failsafe backup for both operations and disaster recovery. During summer 2015, the Copyright Office wanted to run continuity operations from the ACF to avoid taking customers offline during the planned Architect of the Capitol testing. Late in the planning process, the Library informed the Copyright Office, however, that the Library had not provided adequate security controls necessary to run operations through the ACF, and stated that the Library would have to make improvements before the ACF could function appropriately, whether during planned outages or emergency situations. Since last summer, the Copyright Office Chief Information Officer has been in contact with the Library's Chief Information Officer regularly to discuss security issues; the Library agrees that the ACF is not yet ready to provide continuing operations. Additionally, during the outage, the Copyright Office became increasingly concerned about whether and to what degree copyright data was at risk and is pleased that the Library Inspector General is now reviewing the Library's protocols for validating and testing data.

- 2. Have you previously or since the 2015 Outage visited the LOC alternate computer facility? How would you assess its ability to meet the needs of the Copyright Office?**

The Copyright Office's Chief Information Officer and Chief Operations Officer jointly monitor the ACF, which they both have visited, and provide regular feedback to the Library. The Copyright Office initiated a major upgrade of eCO and conducts annual disaster recovery testing for the limited processes within its control. The Library manages the infrastructure components of the ACF, including security, which continues to be a core point of discussion for both offices. If the security shortfalls were remedied,

the Copyright Office technical presence would be fully capable of running the existing, primary line-of-business application, eCO, at the ACF.

- 3. Are you looking at any private resources or capabilities to fill gaps in services or areas that the Copyright Office cannot support at this time? How could the Copyright Office leverage outside expertise to address your challenges?**

The Copyright Office is looking at a variety of private resources to fill gaps in services. As set forth in the Copyright Office's recently released *Positioning the United States Copyright Office for the Future: Strategic Plan 2016-2020* (Strategic Plan), the Office should have business-to-business capabilities that both leverage and support private sector activities, while ensuring and facilitating transparency and fairness. This would include using innovative third-party tools, software programs, registries, and other business models that are interoperable with the Copyright Office's records and underlying data. Additionally, the Copyright Office likely will explore interrelating Copyright Office records with third-party registries and databases. As more fully set forth below, the Copyright Office has discussed Application Programming Interface (API) capabilities with stakeholders, which would be beneficial to the public at large.

- 4. Please identify IT needs that are not currently being met by the LOC. If the Copyright Office was permitted to seek IT services outside of the LOC, what capabilities would you prioritize first? Furthermore, are there innovative vendors or government providers that could provide the required solutions in a shorter timeframe such as GSA's 18F? If so, what changes in LOC policies and regulations would be required for you to take beneficial use of such innovative capabilities?**

The Copyright Office's IT and data requirements are explained in its Strategic Plan and the recently released *Provisional Information Technology Modernization Plan and Cost Analysis* (Provisional IT Plan). These documents build upon several focused studies that incorporated public comments. Both plans suggest using government vendors for a variety of services, from providing cloud services to assisting with application development. In the Provisional IT Plan, we explain the importance of 24-hour, 7-day-a-week support and availability, the creation of business-to-business models, and redundant security. A modern system would require an investment in an overall structure that also enables management of Copyright Office IT directly by Copyright Office staff, who are most familiar with the needs of Copyright Office staff, Copyright Office customers, and public demand for Copyright Office services. That said, there is and should be appropriate coordination and/or collaboration with the Library on these issues.

- 5. How has the Library and your office responded to prevent another major outage such as occurred in August/September of 2015? Have you completed a formal Service Level Agreement (SLA) with the Library to document your availability requirements for your key IT systems? What, if any, are the outstanding actions to prevent another outage and the status of these actions?**

The Copyright Office was extremely concerned about the 2015 outage because the Copyright Office had no control over the security of the copyright data for which it is statutorily responsible, and because neither the public nor Copyright Office employees could access copyright portals, databases, or applications. Since the outage, the Copyright Office has had ongoing communications with the Library about the need for increased security at the ACF and backup protocols. We also have been testing the ACF's disaster capabilities, which we just completed in February. The Copyright Office does not, however, control the infrastructure on which copyright systems are placed, and thus we are limited in how much we can do to alleviate the security concerns at the ACF. The Library itself is engaged in its own analysis and work regarding the outage, with which we are happy to coordinate to the extent possible.

The Library presented a draft SLA to the Copyright Office last fall, but then withdrew the proposal because it lacked sufficient detail and required discussion. The Copyright Office looks forward to working with the Library regarding each entities' respective duties and the current and future IT states.

- 6. A complete solution for the Copyright Office could involve private-public partnerships. Have you looked at creating an open computer Application Programming Interface (API) so that appropriate functionality would be available to the public, non-profits or the private sector? What capabilities should this encompass?**

The Copyright Office has embraced the idea of using APIs to ease transactions, coordinate with data from outside sources, and provide better access to Copyright Office records. In the Copyright Office's 2015 Technology Upgrades Report, a team led by the Copyright Office CIO recognized the value of APIs and recommended that the Copyright Office pursue APIs that would allow batch processing or business-to-business transactions. The Strategic Plan also recommends using innovative third-party tools, software programs, registries, and other business models that are interoperable with the Copyright Office's records and underlying data. Most recently, the Provisional IT Plan explores how to develop a system that would incorporate APIs.

- 7. Some of the records of the Copyright Office remain in paper form. What would the value be to the public if this information was correctly digitized and made available on-line? Would it be worth the cost and what cost estimates do you have to digitize the current paper records? Have you considered offers from non-profits to perform this task using crowd sourcing or other public-involvement strategies?**

At this time, some older records are only available in paper, some are unique to the Copyright Office archive, and some are available elsewhere. Working within budget constraints, the Copyright Office has digitized the vast majority of its records – 35.8 million cards and all 669 Catalogs of Copyright Entries (which provide limited information on copyright registration records from 1891 to 1977) – with the exception of copyright records in bound books from the 1870s to the 1920s. Those older records are delicate and preservation is paramount, thus requiring the Copyright Office to exercise considerable care in converting them into a digital format. Post-1978 records already are accessible online, and the Copyright Office has prioritized making available records from 1971 to 1977. The Copyright Office has been assisted by the non-profit Internet Archive in reviewing the quality of the scans of the Catalogs of Copyright Entries, which are now available online. The OCR review, necessary for accuracy, could well be a good candidate for crowdsourcing and we are currently reviewing crowdsourcing methods used by other entities, including the New York Public Library and NASA. Due to the breadth of this project, we will not have a final cost estimate until the Provisional IT Plan is assessed and funded because part of the overall cost includes incorporating details of records into the government database and search functions, which must still be finalized.

- 8. In a March 23rd, 2015 letter to Ranking Member Conyers you submitted testimony advocating for the Copyright Office to be independent of the Library of Congress. Please provide the Committee with copies of any and all communications sent by the Office of the Register on official or unofficial email or correspondence, in which you suggest, advocate or discuss a Copyright Office independent of the Library of Congress. Exclude any legally protected communications with Members of Congress and their staffs.**

During a February 2015 House Judiciary Committee hearing with private sector witnesses, Ranking Member Conyers requested that the Register respond to the testimony of the witnesses, specifically “whether and how reorganizing the Copyright Office would benefit the copyright community.” Thus, the Register addressed the issue of legal independence at the Ranking Member’s direction and in the context of complex, nuanced, and ongoing deliberations about the Nation’s copyright system.¹ The Register’s letter

¹ The House Judiciary Committee has held almost two dozen hearings since 2013 on the copyright system, including an oversight hearing and hearings on the state of copyright law and the Copyright Office’s functions and resources.

addressed the pros and cons of three proposals put forward by the witnesses, and analyzed a combination of constitutional, statutory, and regulatory issues. The Register concluded that the statutory separation discussed at the hearing would best ensure the Copyright Office's expert and impartial duties under the Copyright Act. As requested, the letter also discussed the benefits and concerns of the Copyright Office remaining within the Library or moving to the Department of Commerce. A copy of the letter is included for your convenience. This review of the copyright system – including the Copyright Office – is an important part of the functioning of copyright law. As requested, enclosed are all outside non-congressional communications located that were sent by the Office of the Register and are responsive to your inquiry, as well as an all-staff update sent by the Office of the Register that may have been received by outside parties.

9. Please provide the Committee with the time and date of meetings with the Librarian, Acting Librarian, Library CIO or other LOC leadership in which you or the Copyright Office CIO discussed Office of Register of Copyrights computer or technology needs since January 1, 2014.

Technology has been a central point of discussion between the Register's Office and the Librarian's Office over the past several years. Most of the Register's meetings have been with the Librarian or Acting Librarian, though she also meets with the Library's Chief Information Officer and Chief Financial Officer regarding particular issues. Executives and staff in the Copyright Office and Library of Congress have long had standing weekly and monthly meetings regarding the Copyright Office's technology needs. Currently, these meetings include: Copyright Office CIO staff meet with the Library of Congress CIO staff weekly regarding operations; the Copyright Office CIO and Library CIO have monthly security meetings with the Library CIO security groups; the Copyright Office CIO or Chief Operating Officer attend monthly security review meetings that include Library CIO staff; there is a weekly configuration control board meeting held by the Library that the Copyright Office CIO attends; and the Copyright Office CIO sits on the Library IT Steering Committee, which is chaired by the Library CIO and reviews proposed technology initiatives.

10. Please provide to the Committee the detailed plan on necessary IT upgrades, a cost estimate for the full modernization effort, and a funding strategy with a time frame for completion. The expectation is that the requirements set forth in House Report 114-110 will formalize a plan that all stakeholders can work from to ensure that funds are being used effectively.

The Copyright Office delivered copies of the Provisional IT Plan to the Chairman of the House Committee on Administration on February 29, 2016. Public questions regarding

funding are currently outstanding. The relevant documents also may be found on the Copyright Office website at <http://copyright.gov/reports/itplan/technology-report.pdf> and <http://copyright.gov/fedreg/2016/81fr10672.pdf>.

Questions from the Minority

11. What are the details of the hiring process at the Copyright Office (Copyright)?

The Copyright Office is subject to the policy described in LCR 2010-14 Merit Selection and Employment, relevant provisions of negotiated collective bargaining agreements, and procedures described in the Library's Merit Selection Plan for Senior-Level Hiring and Merit Selection Plan (GS-15 and below) for all permanent and temporary appointments. The Library's Human Resources Services is responsible for administering LCR 2010-14, maintaining the Merit Selection Plans, publishing vacancies, and making official offers.

12. What are the current staffing levels? How many FTEs is Copyright currently authorized to employ? How many FTEs does Copyright currently employ?

The Copyright Office has an FTE ceiling of 500 FTEs in 2016, covering several line items. As of pay period 2 of 2016, the Office employs 368 FTEs in the basic Copyright positions, 21 FTEs in the Licensing Division, and 6 in the Copyright Royalty Judges. The Copyright Office currently is unable to fill all 500 FTE allocations due to lack of funding.

13. What is the organizational structure of Copyright?

The Copyright Office is one of seven departments in the Library of Congress. The Copyright Office is headed by the United States Register of Copyrights, who directs and oversees seven divisions: Office of the General Counsel and Associate Register of Copyrights (OGC); Office of the Associate Register of Copyrights and Director of Policy and International Affairs (PIA); Office of the Associate Register of Copyrights and Director of Registration Policy and Practice (RPP); Office of the Associate Register of Copyrights and Director of Public Information and Education (PIE); Office of the Chief Information Officer (OCIO); Office of the Chief of Operations (OCOO); and Office of Public Records and Repositories (PRR). The Copyright Office's complete organizational structure is set forth in the attached organizational chart, which also is available on the Copyright Office website at <http://copyright.gov/docs/c-711.pdf>. The Copyright Office divisions correspond to the Register's statutory duties under the Copyright Act.

14. What is the size of your personal staff?

The Register does not have a designated personal staff. The Office of the Register is comprised of the Register, a Senior Advisor, and a confidential assistant.

15. Who makes up the Copyright senior staff? What are their credentials and qualifications?

In addition to the Register, the senior staff of the Copyright Office includes: Jacqueline C. Charlesworth, General Counsel and Associate Register of Copyrights; Karyn A. Temple Claggett, Associate Register of Copyrights and Director of Policy & International Affairs; Robert J. Kasunic, Associate Register of Copyrights and Director of Registration Policy and Practice; William J. Roberts, Associate Register and Director of Public Information and Education; Douglas Ament, Chief Information Officer; David J. Christopher, Chief of Operations; Elizabeth Scheffler, Director of Office of Public Records and Repositories; Sarang V. Damle, Deputy General Counsel; Maria Strong, Deputy Director of Policy and International Affairs; Erik Bertin, Deputy Director of Registration Policy and Practice; Ricardo Farraj-Feijoo, Director of the Copyright Technology Office; and Catherine Rowland, Senior Advisor to the United States Register of Copyrights.

Copies of the senior staff credentials are enclosed with these responses, and they also are available on the Copyright Office website at <http://copyright.gov/about/leadership/>. The senior staff has extensive expertise and experience in intellectual property laws, government administration, and the domestic and global copyright marketplace. The senior legal staff have impressive academic backgrounds and a wide range of experience—from working in top law firms with diverse clients to working as in-house counsel to clerking for federal judges.

16. How much travel is required of the Register? Please list any travel performed in your official capacity including destination, duration, and total cost.

The Register is expected to travel to carry out the functions of the Copyright Act. This includes presentations and meetings with a wide variety of stakeholders. The Register receives many more invitations than are possible to accept, and therefore balances duties in Washington D.C. with the need to travel outside the office on an official basis. During Fiscal Year 2015, the Register traveled to Northern and Southern California, Massachusetts, New York, Rhode Island, Tennessee, and Washington State for a total of 21 days, at a cost to the Copyright Office of \$8,398. All international trips were postponed or declined.

17. How much travel is required of Copyright's senior staff? Please list any travel performed in their official capacity including destination, duration, and total cost.

The Copyright Office's senior staff engages in domestic and international travel throughout the year pursuant to statutory authority and subject to Library approval. This includes traveling for intergovernmental meetings, trade and treaty negotiations, professional meetings, training, and presentations. During Fiscal Year 2015, among the senior staff, twelve people were on official travel for a total of 191 days to the following locations: domestically to Northern and Southern California, Florida, Georgia, Hawaii, Illinois, Massachusetts, Michigan, Minnesota, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Tennessee, Texas, and Washington State; and internationally to Australia, England, France, and Switzerland. The total combined cost for this travel to the Office after reimbursements was \$64,585.

18. To what extent do you consult and interact with members of any bargaining unit within Copyright?

Most non-managers of the Copyright Office are members of one of two labor organizations representing bargaining unit employees at the Library of Congress—Local 2477, American Federation of State, County and Municipal Employees, AFL-CIO (the "Union"); or Local 2910, American Federation of State, County and Municipal Employees, AFL-CIO (the "Guild"). Members of the Copyright Office staff serve as representatives to both the Union and the Guild, and the current Guild President is a member of the Copyright Office staff. As a result, the Register consults and interacts with members of both bargaining units on a regular basis, and Guild leaders are active participants in department meetings and all-hands meetings.

19. How are application fees determined? How much authority does the Register have when determining fees?

Application fees are set in accordance with the process enumerated in 17 U.S.C. § 708(b), which specifies various services for which the Copyright Office may charge fees and provides that the Register may adjust these fees "not more than necessary to cover the reasonable costs incurred by the Copyright Office for . . . [such services], plus a reasonable inflation adjustment to account for any estimated increase in costs." Additionally, fees for core services must be "fair and equitable and give due consideration to the objectives of the copyright system." Fees are established and set forth in Copyright Office regulations following a detailed analysis and public comment. Adjustments to core fees are effective 120 days after submission to Congress unless Congress chooses to amend them.

20. In your opinion, is Copyright in a better or worse situation than when you were appointed Register?

All Registers build upon the prior work of their predecessors. Since June 1, 2011, the Copyright Office has undertaken a comprehensive and integrated approach to modernizing the copyright system, engaging in analyzing updates to Copyright Office services as well as the copyright law it administers. These interrelated projects and policy reports are listed in pages 49-52 of the Strategic Plan. This work, much of which has coincided with budget cuts, includes the following building blocks: 2011-2012 Priorities and Special Projects plan; a 2013 business reorganization that created senior responsibility in IT planning, public records, education, and financial areas; in 2013, new programs for professors, post-graduate fellows, and academic institutions to supplement staffing and attract new ideas; in 2014, the first comprehensive revision of Copyright Office practices in 20 years, resulting in a 1300-page public *Compendium of U.S. Copyright Office Practices* for use by customers, employees, and the courts; in 2014, the first comprehensive legal analysis of the copyright recordation provisions (as related to bringing the system online); a 2015 recommendation for technology improvements and related business paradigms related to Copyright Office services; the 2015 Strategic Plan addressing all aspects of the Copyright Office; and the 2016 Provisional IT Plan. The Office also has produced a Fair Use index for public use. During this period, the Copyright Office has been substantively included in the House Judiciary Committee's overarching review of the copyright law, which has included almost two dozen hearings so far. The Copyright Office has undertaken sixteen policy and technical studies, of which eleven have been completed and delivered, on complex provisions of law in support of Congress, and has held numerous public meetings and public comment periods. The state of the law and the Copyright Office thus is well-documented. As always, the Copyright Office has provided significant support to Executive Branch agencies, engaged in treaty negotiations and other intergovernmental affairs regarding intellectual property, and responds to all requests of the Department of Justice on legal interpretation of copyright matters.

Together, these activities represent significant steps towards making the Copyright Office lean, nimble, results-driven, and future-focused. Nevertheless, significant work remains to be done to truly realize the vision of a modern Copyright Office, and therefore it will be necessary to continue to expand and build upon these accomplishments in the coming years. The Strategic Plan sets forth a vision for how to proceed, subject to existing and future structural and financial constraints. The Copyright Office is extremely proud of its outsized contribution to Congress and the public.

21. How do you balance the various roles Copyright plays with respect to the size and varied interests of the stakeholder community?

The mission of the Copyright Office is to administer the Nation's copyright laws for the advancement of the public good; to offer services and support to authors and users of creative works; and to provide impartial assistance to Congress, the courts, and Executive Branch agencies on questions of copyright law and policy. All Copyright Office rulemakings and policy studies are done in a public and transparent manner, soliciting input and feedback from any interested parties through public roundtables, requests for public comments, and other means. Recent policy studies have resulted in the receipt of comments from a range of stakeholders, including industry associations representing both technology companies and content owners, individual authors, public interest groups, academics, and interested members of the public. In addition, the Copyright Office maintains an open door policy, and regularly meets with any individuals or groups that have an interest in copyright law and policy. In crafting rulemakings and policy studies, the Copyright Office strives to impartially balance the equities of various stakeholders within the statutory constraints set forth by Congress. The Copyright Office has received tens of thousands of comments in its recent policy work, all of which are reviewed and posted.

22. In your plan to modernize Copyright, is job loss expected and if so, in what areas?

On the contrary, the Copyright Office currently has a staffing shortage and has steadily been working to fill vacancies or, as appropriate, update positions to meet the needs of the Copyright Office's evolving work. It is expected that the Copyright Office's greatest future needs will be in the areas of legal, technology, and business experts, with employees to be shifted away from work involving paper forms.

23. If Copyright did end up as an independent agency, what impact would that have on the copyright customer base during the transition period?

In the event that Congress enacts legislation changing the legal structure of the Copyright Office, the Copyright Office and Library would need to implement an appropriate transition plan.

24. In FY 2015 Copyright transferred to the Library of Congress over 600,000 items worth approximately 30 million dollars. If Copyright becomes an independent agency, how will its deposit material be made available to the Library of Congress?

Copyrighted works are made available to the Library pursuant to several statutory provisions and conditions. Some of these provisions are outdated and expensive, and serve neither the copyright registration system nor the Library. There is no reason,

however, that appropriate updates and agreements could not be made in a future restructuring plan to ensure that the Library continues to receive deposit material.

25. The Library acquires most of its “best edition” copies through copyright registration. If Copyright moves to only require an “examination copy,” what would be the impact on the Library of Congress collections and its mission to serve the American people and Congress?

This would depend on many factors, including the definition and disposition of what “examination copy” means, the equities of copyright owners and the public, and the particular collecting goals of the Library. No matter what, the Library should have a healthy demand function under mandatory deposit. In addition, the Library and the Copyright Office should be free to enter into repository agreements to accommodate each entities’ respective needs.

26. What are the shared interests between Copyright and the Library of Congress? How could they be improved?

As noted in the Register’s 2015 letter to Ranking Member Conyers, “[m]any Librarians and many Registers over the years have worked together appropriately and respectfully, to the mutual benefit of the public.” As the Copyright Act has become more complex, however, the administrative obligations delegated to the Copyright Office have increased and the day-to-day activities of the Copyright Office and the national library have become very different. The Copyright Office of today has statutory and regulatory obligations that support a copyright marketplace worth trillions to the U.S. and world economies. While the Library has an interest in copyright law as it relates to its broader mission of “ensur[ing] long-term, uninterrupted access to the intellectual content of the [Library’s] collections,” the Copyright Office is tasked with administering the Nation’s copyright law in a balanced, impartial manner that recognizes the interests and equities of all who have a stake in it – authors, copyright owners, and users alike. Thus, it is important to have appropriate separation and safeguards in place.

27. What services besides IT are currently provided by the Library of Congress to Copyright?

As the parent agency of the Copyright Office, the Library provides certain day-to-day administrative services to the Copyright Office. Apart from IT, these fall broadly into five categories:

- Facilities (including the provision of furnishings, safety inspections, and emergency preparedness services, but excluding services relating to the physical infrastructure of the building in which the Copyright Office is located, which is managed by the Architect of the Capitol)

- Human Capital (including traditional HR functions)
- Financial Management (including accounting and disbursement functions)
- Acquisitions (including management of contracting and procurement)
- Other (including limited legal services, Inspector General functions, program planning, and special events, although the Copyright Office is charged a fee for the latter)

The Copyright Office appreciates the ability to share some of these services, but other services are inefficient as applied to the Copyright Office and should be reviewed.

28. Under acting Librarian David Mao and new CIO Bud Barton, work has begun to address the many IT issues detailed in the 2015 GAO reports. What coordinated steps are being taken by Copyright and the Library to remedy technology issues?

The Register's Office was very involved in helping to create the Library CIO position. Copyright Office staff regularly participate in the Library's IT investment and planning processes, including participation in standing and specific meetings regarding IT issues, and have been actively engaged with the Library's IT staff on initiatives seeking to address certain Library deficiencies identified by the GAO regarding the development of IT investment protocols. In addition, the Copyright Office has regularly updated the Library regarding its own IT planning processes, including the development of its Strategic Plan and the Provisional IT Plan. The Register is an active member of the Executive Committee of the Library and in this capacity engages in many agency-wide discussions. As appropriate, Copyright Office staff support or participate in Library activities and vice versa. However, the Copyright Office's primary duty is to administer the nation's copyright laws.

29. How would you characterize the cooperation between Copyright and the Library of Congress in all facets of operations, not just with regard to IT?

The Copyright Office has maintained an open and collegial relationship with the Library, exchanging information and concerns regarding matters that affect the Copyright Office directly, as well as information about many ancillary professional matters.

30. You have stated the Copyright is constrained because it cannot retain and use all of its revenue and receipts. If Copyright had autonomy over its funds and spending, how would it impact your appropriation?

There are numerous considerations on funding and spending. The Copyright Office would benefit from a revolving fund that allows spending across fiscal years and autonomy in managing its IT and other project expenditures directly. There are other

potential improvements, including recovering more than costs or future costs in some instances. The public currently is commenting on some of these issues pursuant to the Office's March 1, 2016 Federal Register Notice of Inquiry.

31. In 2007, Copyright moved from its paper-based registration process to the eCO system. You have testified that eCO is antiquated. Please tell us:

A. What new system is required to modernize current business areas, specifically registration and recordation? What will it cost?

The eCO application is a good first-generation software portal implemented in 2007 by the previous Register and former Librarian. It was designed primarily for registration, however, and is not nearly comprehensive enough to meet public demands and the trillion-dollar economy that the Copyright Office serves. Last week, the Copyright Office issued a 110-page report setting forth detailed requirements for modernization of the IT systems serving the registration and recordation systems. As outlined in the Provisional IT Plan, the Copyright Office would assume responsibility for a modernized IT system to administer the copyright system for the first time. The Copyright Office estimates that this will cost in the range of \$165 million over a five-year implementation timeframe. This cost is not about eCO, which is one software application, but rather the many aspects of copyright administration that are not operating at full digital capacity, and must be addressed through an IT enterprise solution dedicated to the Copyright Office and the national copyright system.

B. Assuming adequate funding, how long do you estimate it will take to design, build, and test a new system?

As outlined in the Provisional IT Plan, the Copyright Office estimates that the IT modernization process will take approximately 5 years to complete, with critical planning efforts to occur beforehand. The Provisional IT Plan calls for phased accomplishments throughout the process.

C. In Copyright and in the Library of Congress, how many technology staff currently support eCO? How many full-time technology staff would be required to support and maintain a new system?

There are currently 22 full-time staff members in the Copyright Technology Office, all of whom must provide some degree of support for eCO. Additionally, there are 10 full-time contractors that are dedicated to eCO, two of whom perform operations and maintenance activities and eight of whom perform development activities; and a Help Desk staff composed of contractors that provide service desk support for eCO. The Library's Information Technology Services (ITS)

division provides support for eCO on an as-needed basis. Between one and seven support staff from ITS may work on eCO at a given time. More fundamentally, the Library controls the infrastructure, including the architecture and servers that underlie eCO.

The Provisional IT Plan anticipates 42 FTEs to support the new IT systems, supplemented by IT contractors for the development, building, and operational maintenance of the system. Vendors and outside experts are an essential part of a continuously evolving IT environment.

D. How will you ensure that the same mistakes are not repeated when you build the next system?

Under the Provisional IT Plan, core IT and data experts would work in the actual Copyright Office for the first time, in a manner that focuses them on a full-time basis on the copyright system and integrates them into the legal and business expertise of the Copyright Office's mission. The Provisional IT Plan was developed with the assistance of outside consultants utilizing GAO Best Practices and Leading Practices in Information Technology Management. The development team was tasked with creating an IT upgrade plan that delivers operational availability, reliability, scalability, and security, while minimizing risk areas. Risk factors and mitigation plans are spelled out throughout the plan. This structure would avoid the existing paradigm in which the Copyright Office is divorced from oversight of its IT system overall.

E. How do you plan to keep pace with rapidly changing technology and customer demands?

The Copyright Office is the expert in copyright law and the copyright marketplace, and will continue to interact regularly with that marketplace concerning the changing demands of the legal and business landscapes. Additionally, the Provisional IT Plan calls for the adoption of technologies and approaches to development that emphasize a scalable and flexible platform that can be easily expanded or modified to address changing technologies and customer demands, and will focus on widely-adopted IT standards and best practices.



The Register of Copyrights of the United States of America
 United States Copyright Office · 101 Independence Avenue SE · Washington, DC 20559-6000 · (202) 707-8350

The Honorable John Conyers, Jr.
 Ranking Member
 Committee on the Judiciary
 United States House of Representatives
 2426 Rayburn House Office Building
 Washington, DC 20515

March 23, 2015

Re: The U.S. Copyright Office: Its Functions and Resources
 February 26, 2015

Dear Ranking Member Conyers:

I am writing to submit my views for the official record of the above-referenced hearing in accordance with your request.¹ Specifically, you asked me to respond to the testimony of the witnesses on the subject of "whether and how reorganizing the Copyright Office would benefit the copyright community."² It is a privilege to assist you and Chairman Goodlatte as you evaluate these important questions. Thank you for the opportunity to do so.

For a number of reasons, my view as the current Register of Copyrights is that the Copyright Office requires congressional direction to meet the challenges and opportunities of the twenty-first century.³ I am assuming for purposes of this letter that the Judiciary Committee will be further deliberating on the issues discussed at the hearing, and I am assuming further that the Committee is likely to alter the status quo, in which all Copyright Office staff are part of the Library of Congress and the Librarian appoints, supervises, and may remove the Register and other subordinate officers. This framework was uniformly questioned by the Committee's Members and rejected by all of the hearing's witnesses, who

¹ *The U.S. Copyright Office: Its Functions and Resources: Hearing Before the H. Comm. on the Judiciary*, 114th Cong. (2015) ("2015 USCO Hearing"). Witnesses were Robert Brauneis (Professor, George Washington University Law School), Lisa Dunner (Partner, Dunner Law PLLC, on behalf of the American Bar Association Section of Intellectual Property Law), Keith Kupferschmid (General Counsel, Software & Information Industry Association), and Nancy Mertz (Partner, Schoeman Updike Kaufman & Stern LLP, on behalf of the American Intellectual Property Law Association).

² 2015 USCO Hearing, oral testimony at 1:07:21, available at <http://judiciary.house.gov/index.cfm/hearings?ID=517A06E1-2222-42C6-87B2-05D64633F62D> (statement of Rep. John Conyers, Jr., Ranking Member, H. Comm. on the Judiciary).

³ In arriving at the conclusions outlined in this letter, I consulted with my predecessor, Marybeth Peters, who served as Register of Copyrights from 1994-2010. She agrees with the views presented here, including restructuring the Copyright Office as an independent agency.

noted concerns about budget independence, administrative authority, and mission effectiveness.⁴

In light of these concerns, it would be helpful if Congress could decide the Copyright Office's organizational structure soon, so that both the Library and the Copyright Office know whether and how to plan for the capital projects the Copyright Office so sorely needs. As the Committee is aware, major technology investments must be routed through the Library's central departments and infrastructure, a paradigm that presents significant challenges for all involved. Moreover, the Library is under pressure to tighten its existing processes and controls in this area in order to further leverage economies of scale throughout the agency and adopt other "best practices" of the federal government.⁵ The combination of these developments makes rather pressing the question of whether the Copyright Office should continue to be subject to the Library's agency-wide goals.

⁴ During the hearing, Representative Nadler observed that, "[f]rom the witness testimony, I gather there's agreement that the Copyright Office as currently structured faces a variety of challenges in executing the basic functions stakeholders expect from it, and that it lacks independent budget and administrative authority. While the Copyright Office . . . has taken the initiative to address some of these challenges, only Congress can provide the resources and flexibility the Office needs to continue serving the public and Congress." *Id.* at 1:18:16 (statement of Rep. Jerrold Nadler, Member, H. Comm. on the Judiciary).

Additionally, Representative Issa asked the witnesses whether they believed that the Copyright Office is "structured to be efficient, nimble, modern, and progressive in a way that the twenty-first century would demand." *Id.* at 1:11:06 (statement of Rep. Darrell Issa, Member, H. Comm. on the Judiciary). The witnesses unanimously agreed "a hundred percent" that they did not believe it to be so structured. *Id.* at 1:11:18. Representative Deutch also expressed his concerns over the current structure, noting that "[i]t's time to enact a restructured, empowered, and more autonomous Copyright Office that's genuinely capable of allowing America to compete and to protect our citizens' property in a global marketplace." *Id.* at 1:36:40 (statement of Rep. Ted Deutch, Member, H. Comm. on the Judiciary).

Similar questioning took place at recent budget hearings. During the House Legislative Branch Subcommittee hearing on the Library budget, Ranking Member Wasserman Schultz asked whether the Copyright Office's "current structure and [its] budget . . . [is] sufficient for [the Copyright Office] to perform the duties that [it is] responsible for, meet the user community's concerns and their needs." *Fiscal Year 2016 Budget Hearing on the Architect of the Capitol and Library of Congress Before the H. Subcomm. on Legis. Branch of the H. Comm. on Appropriations*, 114th Cong., oral testimony at 1:13:56 (2015), available at <http://appropriations.house.gov/calendar/eventsingle.aspx?EventID=393997> (statement of Rep. Debbie Wasserman Schultz, Ranking Member, Subcomm. on Legis. Branch).

In the Subcommittee on the Legislative Branch of the Senate Appropriations Committee, Ranking Member Schatz stated that, while it did at one time make sense for the Library and the Copyright Office to share the same "roof," "reality has changed," he is "worried that the Copyright Office may be outgrowing its home within the Library of Congress," and the Library "may no longer be the right fit" for the Copyright Office. It is time, he recommended, to "reevaluate whether this fit . . . makes sense anymore." *FY16 Library of Congress & Architect of the Capitol Budget: Hearing Before the Subcomm. on the Legis. Branch of the S. Comm. on Appropriations*, 114th Cong., oral testimony at 51:57 (2015), available at <http://www.appropriations.senate.gov/webcast/legislative-branch-subcommittee-hearing-fy16-library-congress-architect-capitol-budget> (statement of Sen. Brian Schatz, Ranking Member, Subcomm. on the Legis. Branch).

⁵ At the request of appropriators, the Government Accountability Office has in recent months performed two audits involving information technology challenges in the Library and Copyright Office. GAO will publish its reports and recommendations, as well as agency responses, on or around March 31, 2015.

Although several alternative paths emerged at the hearing, my staff and I focused specifically on the long-term interests of the nation's copyright system. We believe that these interests would be served best by establishing an independent copyright agency to administer the law, and by designating a leader that is appointed by the President with the advice and consent of the Senate. This would: provide a sound constitutional foundation for both new and existing copyright functions; ensure that Congress, federal agencies, and the public continue to benefit from the Copyright Office's expert legal proceedings and impartial policy advice; and attract future qualified leaders able to interact at the highest levels of a modern government.

Eliminating Constitutional Challenges

Professor Brauneis's testimony presents what he calls the "constitutional predicament" that is presented by the Copyright Office's placement as a subordinate department of the national library.⁶ His statements highlight the somewhat unusual nature of the Library of Congress in the modern administrative state—the fact that it encompasses both purely executive functions (exercised through the Copyright Office and the Copyright Royalty Board) and purely legislative ones (exercised through the Congressional Research Service). This bifurcated structure has recently been subject to constitutional challenges in the courts.

The Department of Justice has defended against those challenges by concluding and asserting that the Library as a whole is within the executive branch, a view adopted in recent court decisions.⁷ As a legal construct, it has to be this way, because the Librarian of Congress is removable by the President alone and there is no particular congressional committee that has similar or shared supervisory authority over the Librarian. As Professor Brauneis notes, this conclusion runs counter to the assumption of many who "consider the Library of Congress to be part of the legislative branch of government."⁸ The prospect that the President can assert plenary authority over the Library of Congress may be cause for concern for Members of Congress.⁹

More fundamentally for me, this confusion has the potential to compromise confidence in the copyright system at the very time we need to plan it forward. It is quite possible there will be further litigation involving the disposition of copyright functions and authorities,

⁶ 2015 USCO Hearing (written statement of Robert Brauneis at 9-15, available at http://judiciary.house.gov/_cache/files/4f8fc2a0-10de-4075-9b4b-26cbe1f1e05c/revised-brauneis-testimony.pdf) ("Brauneis Statement").

⁷ See *id.* at 10-12 (citing *Eltra Corp. v. Ringer*, 579 F.2d 294 (4th Cir. 1978); *Intercollegiate Broad. Sys., Inc. v. Copyright Royalty Bd.*, 684 F.3d 1332 (D.C. Cir. 2012)).

⁸ *Id.* at 9.

⁹ *Id.* at 12.

and it is also possible that the courts will weigh in with further decisions on this matter. It would be better for Congress to address the equities prospectively, namely, what is the best way to meet the overall objectives of the copyright law.¹⁰

Creating an Independent Agency

Many people, including Members of Congress, are surprised to find that the copyright system is currently accountable to the national library.¹¹ There are mounting operational tensions with this arrangement¹² and, as discussed at the hearing, a number of legal concerns.¹³ In considering the issues and the options, we have come to believe that the national copyright system would be better served by an independent copyright agency.

An independent agency would both solve the current administrative challenges and position the copyright system for future success. It would also recognize and continue the Copyright Office's extensive but impartial role in domestic and international affairs.

¹⁰ The appropriate organizational and reporting structure for the Library itself, aside from the copyright system, is beyond the purview of our analysis. When Congress created the position of Librarian in 1802, it specified that the Librarian was to be appointed by the President acting alone. Then, when Congress created the Copyright Office in 1897, it insisted on Senate confirmation of the Librarian to satisfy Appointments Clause requirements. John Russell Young was the first Librarian to be formally appointed in this manner.

¹¹ 2015 USCO Hearing, oral testimony at 2:16:23 (statement of Rep. Dr. Judy Chu, Member, H. Comm. on the Judiciary) ("I think most people are surprised when they learn that our nation's Copyright Office is housed under the Library of Congress, because the missions are so different.").

¹² As discussed at the hearing, information technology is governed according to central Library processes and priorities, although the Copyright Office's needs are distinct. Copyright Office staffing allocations and pay are subject to the Library's decisions and rules. The Library's salaries for top officials throughout the agency are considerably lower than salaries for comparable positions in executive agencies, including for copyright officials at the U.S. Patent and Trademark Office.

¹³ As Lisa Dunner, speaking on behalf of the American Bar Association Section of Intellectual Property Law, noted, "there is an inherent conflict of interest in having the Library sign off on and control regulations formulated by the Office, especially since the Library, like other libraries, often takes position[s] on policy matters that are the subject of the Office's studies and rulemaking proceedings." *Id.* at 0:49:21; see also *id.* (written statement of Lisa Dunner at 9-10, available at http://judiciary.house.gov/_cache/files/9614a33b-39fd-4b57-b053-055362b611d4/dunner-testimony.pdf) (voicing concern over potential conflicts of interest regarding copyright issues).

This is not a new concern; instead it has been voiced by some in the copyright community for decades. See, e.g., *Copyright Reform Act of 1993: Hearing on H.R. 897 Before the Subcomm. on Intell. Prop. & Jud. Admin. of the H. Comm. on the Judiciary*, 103d Cong. 118 (1993) (statement of Steven J. Metalitz, Vice President & General Counsel, Information Industry Association) ("[W]e think it is time for Congress to consider severing the link between effective copyright protection and the acquisitions objectives of the Library. Those are important objectives, but we simply don't feel that a creator's right to obtain effective copyright protection should depend on how quickly he or she gives a free copy of the work, or two free copies of the work, to the Library of Congress."); see also 2015 USCO Hearing (written statement of Keith Kupferschmid at 6-7, available at http://judiciary.house.gov/_cache/files/998864fa-c779-494d-998e-44859ec3911a/kupferschmid-sia-testimony.pdf) (stating that many newspapers no longer register their works because the Library continues to require microfilm copies when newspapers no longer use microfilm, thus making registration a financial and administrative burden).

Countless Members of Congress, the Department of Justice, the Department of State, the United States Trade Representative, the Department of Commerce and, most recently, the Intellectual Property Enforcement Coordinator, have turned to the Copyright Office to interpret and advise on copyright legislation, litigation, trade agreements, and treaties arising under the Copyright Act and related provisions of Title 17. An independent agency would be free to serve all branches of government without political restraint, including especially through expert studies and congressional testimony.¹⁴ It could lead, participate in, or analyze issues relating to a variety of international meetings and negotiations, not only assisting the President in representing the intellectual property interests of the United States, but also assisting Congress in assessing the impact and implementation requirements for domestic laws. And, an independent agency could ably carry out executive functions (such as registration and rulemakings) without the complications that arise from being organized in the Library and treated for certain purposes as a legislative branch entity.

As explored at the hearing, an independent copyright agency would also give Congress something it has never had before, a dedicated agency that is capable of absorbing more of the detail and administration of the copyright code.¹⁵ This is a considerable advantage for a law that is both critical to the economy and invariably complex, not only for individual members of the public, but also for the many authors, businesses, and public interest

¹⁴ We should recognize that, over the years, the Library has offered a form of shelter to the Copyright Office with respect to its legal work and policy analyses, and that multiple Librarians have exercised a largely hands-off approach with respect to this portion of the Register's portfolio. This deference helped the Copyright Office "to be an independent voice for ensuring balanced treatment of copyright-related matters." *The Omnibus Patent Act of 1996: Hearing on S. 1961 Before the S. Comm. on the Judiciary*, 104th Cong. 18 (1996) (statement of Marybeth Peters, Register of Copyrights, quoting a letter to Sen. Hatch from the library, book publishing, and scholarly communities) ("1996 Hearing"). The same result can be achieved by creating an independent agency, albeit one with greater responsibilities and safeguards appropriate to the digital age.

¹⁵ See, e.g., 2015 USCO Hearing, oral testimony at 1:19:56 (statement of Lisa Dunner) ("if the Copyright Office had more autonomy and was given more control over its own rules and regulations I think it would have great improvements to the Act . . . if the Copyright Office had the strongest voice where its rules and regulations were given more deference it would ultimately help to clear up the Act."); see also Sandra M. Aistars, *The Next Great Copyright Act, or a New Great Copyright Agency? Responding to Register Maria Pallante's Manges Lecture*, COLUM. J. L. OF L. & THE ARTS at 304 (forthcoming 2015) (entered into the 2015 USCO Hearing record by Rep. Nadler) (noting that "empowering an entity to exercise appropriate regulatory authority could serve an important role and reduce the need for and scope of legislative action").

The possibility of using regulations to improve copyright law has been considered since the beginning of the copyright review process, and before. See *The Register's Call for Updates to U.S. Copyright Law: Hearing Before the H. Subcomm. on Courts, Intell. Prop., & the Internet of the H. Comm. on the Judiciary*, 113th Cong. 35 (2013) (incorporating *The Next Great Copyright Act* Manges lecture) ("As more than one professor has noted, the Office has had very little opportunity to apply its expertise, leading Congress to write too much detail into the code on matters that are constantly changing, such as economic conditions and technology.").

organizations that must regularly navigate and apply it. Moreover, creating an independent agency does not necessarily preclude later steps, for example, congressional consideration of an Intellectual Property Office, along the lines of previous congressional thinking on this subject.¹⁶

Although the Copyright Office is a small operation and would be a rather small agency, we see this as a significant benefit. An independent agency configuration would allow the Copyright Office to operate in a lean and innovative manner that befits the innovative needs of the copyright system. The Copyright Office could control its own budget and apply its fees in a targeted manner that does not dilute its mission or statutory duties. It could also harness synergies from across the government. For example, in the federal government today, there is no reason that the Copyright Office could not share or purchase services from other agencies, including office space, financial systems, cloud services, and other needs. At the same time, the Copyright Office would be much better able to harness the considerable talents of the copyright community, particularly when investing in the enterprise architecture, data management strategies, and business-to-business services that copyright stakeholders require.

Congress is in an exciting situation here. It has an opportunity to position the Copyright Office to act nimbly and efficiently, and in doing so to facilitate the extraordinary digital economy of the United States. As the witnesses noted, a well-functioning Copyright Office that is able to effectively service its constituents would produce significant benefits to the United States, including by generating “a large number of new copyright transactions,”¹⁷ “more licensed projects,”¹⁸ and “increased registration[s].”¹⁹ In short, a “properly-functioning Copyright Office would be just a huge boon to the U.S. economy, to the creative community, and certainly to the public.”²⁰

Although the costs of a small agency are difficult to assess, they are surely manageable, especially when considered with the possibility of new fee models.²¹ At Congress’s direction, my staff and I would be pleased to create and submit a summary of other financial considerations. Otherwise, at this very early stage in the discussion, we would

¹⁶ See Omnibus Patent Act of 1996, S. 1961, 104th Cong. (1996) (legislation that would have established a single government corporation to formulate policy and administer patents, trademarks, and copyrights). Senator Hatch stated that it would be difficult to increase the Copyright Office’s executive powers, given its current “anomalous position in the legislative branch.” 1996 Hearing, at 2 (statement of Sen. Orrin Hatch, Chairman, S. Comm. on the Judiciary).

¹⁷ 2015 USCO Hearing, oral testimony at 1:34:30 (statement of Robert Brauneis).

¹⁸ *Id.* at 1:34:42 (statement of Nancy Mertz).

¹⁹ *Id.* at 1:35:04 (statement of Lisa Dunner).

²⁰ *Id.* at 1:35:17 (statement of Keith Kupferschmid).

²¹ *Id.* at 1:04:39 (witnesses discussing potential fee differentiation).

observe that any new plan should accomplish three things: (1) it should codify Congress's decision regarding leadership and reorganization; (2) it should include an effective date for any change as well as a transition period for operations; and (3) it should require agency leaders to commission and present short-term and long-term priorities and investment justifications, including on such issues as office space, data centers, staffing priorities, and urgent IT expenditures.²² We know that other agencies and businesses in the copyright and technology sectors, which are extraordinarily talented and forward-thinking, have already expressed an interest in helping and would be invaluable to leaders undertaking these processes.

Creating a Sub-Agency

Some have suggested that the Register could be a Presidential appointee within a sub-agency of the Library of Congress. This approach would be an improvement over the current structure. For example, it would help with certain accountability issues,²³ and it would presumably provide the Register with more of a voice in appropriations requests, technology investments, and other management decisions that affect Copyright Office staff. However, this model would leave other concerns unresolved. The Librarian would remain the constitutional head of the agency and the copyright system, and the Register would not necessarily have autonomy over copyright policy and regulations.²⁴ The Register also would not be able to appoint inferior officers—for example, judges on a small copyright claims court, if Congress decided to create such a body—because the Register would not be considered a Head of Department for purposes of the Appointments Clause.²⁵ These positions would instead be accountable to the Librarian, and, perhaps more to the point, it would unambiguously make the Librarian, and therefore the entire Library of Congress, part of the executive branch.

²² The question of funding has arisen throughout congressional discussion of the Copyright Office, with Members stating that the Copyright Office should be fully funded. See, e.g., *U.S. Copyright Office: Hearing Before the Subcomm. on Courts, Intell. Prop., & the Internet of the H. Comm. on the Judiciary*, 113th Cong. 25 (2014) (“2014 USCO Hearing”) (statement of Rep. John Conyers, Jr., Ranking Member, H. Comm. on the Judiciary) (“And most importantly, a strong copyright system requires that we fully fund the Copyright Office, and in that regard the Chairman of this Committee, Bob Goodlatte, joins me in supporting that idea.”). More specifically, Members have inquired about the need for funds for the Copyright Office’s IT needs, including the scope of necessary funding. See, e.g., *id.* at 44 (statement of Rep. Jerrold Nadler, Ranking Member, Subcomm. on Courts, Intell. Prop., & the Internet).

²³ 2015 USCO Hearing, oral testimony at 1:21:36 (statement of Keith Kupferschmid) (noting that a presidential appointment would help with transparency and accountability).

²⁴ Lisa Dunner, speaking on behalf of the American Bar Association Section of Intellectual Property Law, observed that the “Librarian’s broad authority over Copyright Office functions is problematic on multiple levels,” including because the Librarian need not be a copyright expert. *Id.* at 0:49:11.

²⁵ See, e.g., *Intercollegiate Broad.*, 684 F.3d 1332 (discussing Appointments Clause issues, including that Heads of Departments may appoint inferior officers).

In general, Congress could indicate its preference that the Library remove the sub-agency from central Library priorities and workloads, especially if these would present a legal or practical conflict, *i.e.*, participating in Library committees regarding acquisitions strategies or budget needs. This would be helpful because Copyright Office staff are frequently called upon to support the Library's broader mission, including participating in agency-wide protocols and projects that have little to do with administering the Copyright Act.

Nonetheless, in a sub-agency, it would still be the case that the Librarian could, in his or her discretion, exert influence or control over the Register's management or policy decisions. This is not necessarily an unusual dynamic within large or cabinet-level agencies, but in this case, where the Librarian's primary duty is always going to be the agency's mission as a library, it would be difficult for Congress to protect against either a real or potential conflict of interest.²⁶ Congress could not enact a legal wall between the two parts of the agency, as is sometimes done to deal with potential conflicts of interest within an institution, because this would effectively remove the Librarian from the very role he or she is constitutionally responsible for as the agency head. It is therefore difficult to imagine how a sub-agency would stabilize or solve the current problems for very long.

Considering the Department of Commerce

Although witnesses spoke against the possibility²⁷ and the Copyright Office does not recommend it, Congress could relocate the Copyright Office to the Department of Commerce as a sibling to the U.S. Patent and Trademark Office. This would ameliorate constitutional concerns and combine the administration of intellectual property laws under one roof. Congress would need to be clear about the longstanding policy role of the Register, which otherwise could be compromised or even eliminated, as the case may be, depending on how reporting lines are established.

²⁶ Although the Librarian serves at the pleasure of the President, Librarians have enjoyed lengthy careers and tenures in modern times. Current Librarian of Congress James H. Billington was appointed in 1987 by President Reagan, and former Librarian Lawrence Quincy Mumford served from 1954-1974. Additionally, while the President has the power to remove the Librarian, this has happened only rarely. See *About the Librarian, Previous Librarians of Congress, George Watterston and John Silva Meehan*, available at <http://www.loc.gov/about/about-the-librarian/previous-librarians-of-congress/george-watterston/> and <http://www.loc.gov/about/librarianoffice/meehan.html> (upon election to the presidency, both President Andrew Jackson and President Lincoln removed the Librarian of Congress).

²⁷ See 2015 USCO Hearing, oral testimony at 2:25:23 (statement of Rep. Hakeem Jeffries, Member, H. Comm. on the Judiciary) (asking whether placing the Copyright Office within the Department of Commerce or combining it with the U.S. Patent and Trademark Office would present "incompatibility problems"); *id.* at 2:25:52 (statement of Nancy Mertz) (noting that placing the Copyright Office in the Department of Commerce or incorporating it into the U.S. Patent and Trademark Office "feels a little bit like back to the future because it came up twenty-two years ago," and further noting that patents, trademarks, and copyrights have very different legal schemes, and combining them would cause funding challenges).

On a different point, Congress would want to consider whether the copyright law itself would be lost or compromised in an agency as large as Commerce—specifically whether administrative and policy priorities would be subsumed. And, while Congress (and for that matter the Department of Justice) would still have access to a Copyright Office located in the Department of Commerce, the Copyright Office's views would not be independent. Rather, its policy advice and legal interpretations would be subject to the coordination, clearances, and, as applicable, restraints that are normal for executive branch officials. This would fundamentally change the role the Copyright Office has always played in the copyright system generally and with Congress specifically.²⁸ Additionally, as former Register Marybeth Peters noted when testifying two decades ago, copyright law and policy go beyond promoting commerce and, indeed, have “a unique influence on culture, education, and the dissemination of knowledge,” and “may be slighted if . . . wholly determined by an entity dedicated to the furtherance of commerce.”²⁹

Honoring the Library of Congress

We would also make a point that was not raised at the hearing. An independent agency would ensure the most flexibility to continue the Copyright Office's relationship with the Library of Congress, which is the beneficiary of mandatory deposit provisions administered by the Register as well as certain works submitted by authors and other copyright owners for registration purposes. Although both of these provisions must be recalibrated for the digital age, we can assume that they will continue to exist in some form. The Register and the Librarian will therefore need to continue to work together on regulatory parameters and practices, either informally or through statutorily mandated committees or consultations.³⁰ At the core, what we are recommending is that Congress codify the structure that many assume to be the case already, by conferring independent agency

²⁸ “Among other key duties, the Register serves as the principal adviser to Congress on matters of copyright law and policy.” 2014 USCO Hearing, at 27 (statement of Rep. Howard Coble, Chairman, Subcomm. on Courts, Intell. Prop., & the Internet). The Copyright Office “provides expert copyright advice to Congress . . . and the Office recommends much-needed improvements to the copyright system based on its research and analysis.” 2015 USCO Hearing, oral testimony at 0:32:43 (statement of Rep. John Conyers, Jr., Ranking Member, H. Comm. on the Judiciary).

²⁹ 1996 Hearing, at 19, 24 (prepared statement of Marybeth Peters, Register of Copyrights).

³⁰ Congress has already created statutory relationships between the Copyright Office and other federal entities. For example, the Undersecretary of Commerce for Intellectual Property (who is also the Director of the U.S. Patent and Trademark Office), a Senate-confirmed advisor to the President on intellectual property, must by law “consult with the Register of Copyrights on all copyright and related matters.” 35 U.S.C. § 2(c)(5) (2014). Likewise, the Register serves as a statutory advisor to the Intellectual Property Enforcement Coordinator, a Senate-confirmed position that was created by Congress in 2008 and is in the Executive Office of the President. 15 U.S.C. § 8111(a), (b)(3) (2014).

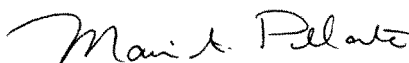
status on the Copyright Office and making it a partner with, rather than a subordinate to, the Library.

The Library, of course, is a singularly important bibliographic institution known around the world for its unparalleled collections, curators, and scholars. Many Librarians and many Registers over the years have worked together appropriately and respectfully, to the mutual benefit of the public. Concerns about how to position the Copyright Office for the digital age certainly should not be framed as criticism of the Library. These issues more aptly reflect the unprecedented importance and complexity of the copyright law in modern times.

Conclusion

My staff and I are indebted to the Committee for its timely attention to the nation's copyright system, including the United States Copyright Office. It is a privilege to assist with the forward-thinking questions you are exploring and addressing. At your request, we would be pleased to provide additional documentation or analysis in support of the operational and policy views expressed above.

Respectfully,



Maria A. Pallante
Register of Copyrights and Director
U.S. Copyright Office

cc: Hon. Bob Goodlatte
Chairman
U.S. House of Representatives, Committee on the Judiciary
2138 Rayburn House Office Building
Washington, DC 20515

From: Pallante, Maria
To: "Spelman, Katherine C."; marybethpeters@gmail.com
Subject: RE: Apr 2 -- BNA's Patent Trademark & Copyright Journal - Breaking News
Date: Friday, April 03, 2015 12:59:00 PM

Hi Kate - I see the incomparable Marybeth is quoted in today's BNA. We are dwarfs standing on the shoulders of giants. I hope you are well. All the GAO docs, including my response, is under Technology Reports on our website, under Publications.

From: Spelman, Katherine C. [mailto:Kate.Spelman@klgates.com]
Sent: Thursday, April 02, 2015 5:31 PM
To: marybethpeters@gmail.com; Pallante, Maria
Subject: FW: Apr 2 -- BNA's Patent Trademark & Copyright Journal - Breaking News

Yep.... It's big news alright....

Katherine C. Spelman
 K&L Gates LLP
 925 Fourth Ave. Suite 2900
 Seattle, WA 98104-1158
Kate.Spelman@klgates.com

conference call: 855.886.4157
 Access code: 1017650

From: BNA Highlights [mailto:bhighlight@email.bna.com]
Sent: Thursday, April 02, 2015 12:14 PM
To: BNAPatentTrademarkCopyrightJ
Subject: Apr 2 -- BNA's Patent Trademark & Copyright Journal - Breaking News



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Breaking News

Copyright Office Wants to Sever Ties With Library of Congress, Be Independent Agency

Posted April 02, 2015, 3:07 P.M. ET

By [Tamlin Basan](#)

"[W]e have come to believe that the national copyright system would be better served by an independent copyright agency," Register of Copyrights Maria Pallante said in a letter to Rep. John Conyers Jr. (D-Mich.) dated March 23, which was later published on the Copyright Office's website.

A Feb. 26 House Judiciary Committee hearing was held to discuss the Copyright Office's "Functions and Resources," but there were no representatives from the Copyright Office at the witness table. Accordingly, Conyers asked Pallante to submit her views on whether and how the Copyright Office should be restructured, because all of the witnesses and lawmakers agreed that the Copyright Office's current placement within—and under the complete control of—the Library of Congress was no longer ideal, or even workable.

During the hearing three potential solutions were discussed: Give the Copyright Office more autonomy within the Library of Congress; have the office absorbed by the Patent and Trademark Office; or make the Copyright Office a standalone executive-level agency. Pallante's letter touched on all three recommendations, but creating an independent agency provides the best way forward, she said.

"At the core, what we are recommending is that Congress codify the structure that many assume to be the case already, by conferring independent agency status to the Copyright Office and making it a partner with, rather than a subordinate to, the Library," the letter said.

Full text: [Pallante's letter](#)

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 925 4TH AVE SUITE 2900
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 FAX: 206 461 1001
 WWW.KLGATES.COM

From: Register of Copyrights
Sent: Friday, January 15, 2016 11:21 AM
To: Cop_All
Cc: Register of Copyrights
Subject: Copyright Office Developments

Importance: High

Dear Colleagues-

Happy New Year!

I look forward to seeing you soon. In the meantime, I wanted to flag for you the Code Act, which was introduced in December, as well as the House and Senate Reports that accompany the Consolidated Appropriations Act for current fiscal year 2016, enacted on December 18, 2015. We will discuss these issues in more depth in our All- Hands meeting on January 27th.

Appropriations:

The **House Report** supports the premise that the U.S. Copyright Office should have a dedicated IT plan (developed in the Copyright Office) and directs the Register to spearhead this work by completing an IT plan with costs (which will be both capital and operating), and a timeline, and soliciting public feedback. We appreciate this assignment and we built such a process into the Strategic Plan that we released on December 1. (See Goal 5 on page 33 of our Strategic Plan: (Building a robust and flexible technology enterprise- <http://copyright.gov/reports/strategic-plan/USCO-strategic.pdf>.) Indeed, we are nearing completion of a Copyright-Office-specific IT plan and will be publishing a number of public questions within a few weeks. Better technology will of course support our staff as well as our customers. We will give you a heads up when we get a little closer.

The Senate Report notes the importance of the Copyright Office and states that modernization should be viewed more broadly than upgrades to IT and business processes and could include changes to the legal structure and/or location of the Copyright Office. This comprehensive view of modernization is of course consistent with the last few years of deliberation in the House Judiciary Committee, as well as my own testimony. The Senate also notes the need for an open dialogue focused on what is best for the Copyright Office and modern economy.

Copyright Office for the Digital Economy Act (CODE ACT):

Also, as you probably know, three members of the House of Representatives formally introduced a bill on December 11, 2015 that would recalibrate the Copyright Office as an independent agency in the legislative branch. Among other things, it codifies longstanding practice by ensuring that the director may advise Congress freely, without coordination or clearance from the executive branch. It also authorizes the Copyright Office to explore and institute more modern registration and deposit practices, and calls for a study as to whether mandatory deposit provisions could or should be transferred to the Library. And, consistent with comparable positions in the government, it provides that the President of the United States shall appoint the head of the Copyright Office. The bill was co-sponsored by Tom Marino and Judy Chu (both members of the House Judiciary Committee) and Barbara Comstock (member of the House Administration Committee).

In short, we have multiple committees focused on the well-being of the Copyright Office and the national copyright system and we are going to have a busy but exciting 2016 working with Congress, the Library, and our many stakeholders.

Thank you, as always, for your outstanding public service and support.

I am including links and summaries below. All the best- Maria

The Copyright Office for the Digital Economy Act (HR 4241)

Bill text

<https://www.congress.gov/bill/114th-congress/house-bill/4241/text>

“The United States Copyright Office is established as an agency in the legislative branch....

The powers and duties of the United States Copyright Office shall be vested in a Director of the United States Copyright Office, who shall be a citizen of the United States and shall be appointed by the President, by and with the advice and consent of the Senate. The President shall make the appointment after receiving the recommendations of the commission established under subparagraph (B)

Key points:

<http://chu.house.gov/sites/chu.house.gov/files/documents/CODE%20Act%20Section%20by%20Section.pdf>

Consolidated Appropriations Act, 2016

House Report 114-110

<https://www.congress.gov/congressional-report/114th-congress/house-report/110/1>

The Committee fully understands the importance of the Copyright Office as it relates to creativity and commercial artistic activity not only within the United States but also on a world-wide basis. In order to serve the copyright owners and the copyright community in the 21st century, a robust modern information technology (IT) operation will be necessary. The \$1.5 million provided in fiscal year 2015 began the effort to determine the requirements for a modern IT environment. With the planning underway, the Committee directs the Register of Copyrights to report, to the Committee on Appropriation and relevant Authorizing Committees of the House on a detailed plan on necessary IT upgrades, with a cost estimate, that are required for a 21st century copyright organization. In addition to the cost estimate, the Register shall include recommendations on a funding strategy and a time frame for completion of a new IT system that is necessary to better serve the public in the digital age. The Register should seek public comments to help inform the Copyright Office with the funding strategy and implementation timeline. The cost estimate is to be provided to the Committee with 180 days of enactment of this Act with the funding strategy to be provided 45 days after public comments are received.

The Committee understands the Copyright Office has offered its expertise on copyright matters to the Executive Branch, including participation in international discussions, and expects the Office to continue that important role.

<https://www.congress.gov/congressional-report/114/senate-report/64>

Senate Report 114-64

Modernization.--The Committee recognizes the vital and expanding role of the Copyright Office in our economy. In particular, the Committee finds that digital technologies have

profoundly changed the copyright marketplace and that, as a result of these changes, the Copyright Office's role is different than when it was originally founded and housed within the Library of Congress in 1870. The Committee finds that it is necessary to ensure that effective, efficient, and secure systems are in place at the Copyright Office to support the needs of all copyright-related industries. **The Committee notes that, in addition to ongoing technological and process improvements, modernization of the Copyright Office could include proposed alternatives to its current structure and location within the Library of Congress.** The Committee encourages an open dialogue to consider all options that allow for a thriving and efficient Copyright Office in the modern economy.

House Report 114-110

The Committee fully understands the importance of the Copyright Office as it relates to creativity and commercial artistic activity not only within the United States but also on a world-wide basis. In order to serve the copyright owners and the copyright community in the 21st century, a robust modern information technology (IT) operation will be necessary. The \$1.5 million provided in fiscal year 2015 began the effort to determine the requirements for a modern IT environment. With the planning underway, the Committee directs the Register of Copyrights to report, to the Committee on Appropriation and relevant Authorizing Committees of the House on a detailed plan on necessary IT upgrades, with a cost estimate, that are required for a 21st century copyright organization. In addition to the cost estimate, the Register shall include recommendations on a funding strategy and a time frame for completion of a new IT system that is necessary to better serve the public in the digital age. The Register should seek public comments to help inform the Copyright Office with the funding strategy and implementation timeline. The cost estimate is to be provided to the Committee with 180 days of enactment of this Act with the funding strategy to be provided 45 days after public comments are received.

The Committee understands the Copyright Office has offered its expertise on copyright matters to the Executive Branch, including participation in international discussions, and expects the Office to continue that important role.

Maria A. Pallante
United States Register of Copyrights

<p>United States Register of Copyrights and Intellectual Property Director Maria A. Pallante</p>	<p>Special Assistant to the United States Register of Copyrights Syreeta N. Swann</p>	<p>Chief of Operations David J. Christopher</p>	<p>Director of Office of Public Records & Repositories Elizabeth Scheffer</p>
<p>Associate Register of Copyrights and Director of Registration Policy & Practice Robert I. Kasunic</p>	<p>Associate Register of Copyrights and Director of Public Information & Education William I. Roberts</p>	<p>Chief Information Officer Douglas Ament</p>	<p>Administrative Services Office Bruce J. McCubbin <i>Chief</i></p>
<p>Associate Register of Copyrights and Director of Policy & International Affairs Kayn A. Temple Cluggett</p>	<p>Deputy Director of Policy & International Affairs Maria Strong</p>	<p>Director of Copyright Technology Office Ricardo Farraj-Felipo</p>	<p>Records Research & Certification Section McKenna Bain <i>Acting Head</i></p>
<p>General Counsel and Associate Register of Copyrights Jacqueline C. Charlesworth</p>	<p>Deputy General Counsel Sarang V. Danile</p>	<p>Copyright Information Section Denise Garrett <i>Head</i></p>	<p>Records Management Section Angela Brewer <i>Acting Head</i></p>
<p>Deputy Director of Registration Policy & Practice Erik Bertin</p>	<p>Literary Division Ted Hinshaw <i>Chief</i> Ingrid Abbott <i>Asst. Chief</i></p>	<p>Publications Section Vacant <i>Head</i></p>	<p>Acquisitions Division Stephen D. Went <i>Chief</i> Daris Proud <i>Asst. Chief</i></p>
<p>Performing Arts Division Laura Lee Fischer <i>Chief</i> Alexander A. <i>Asst. Chief</i></p>	<p>Visual Arts Division John H. Ashley <i>Chief</i> Vacant <i>Asst. Chief</i></p>	<p>Licensing Division James G. Estrima <i>Chief</i> Mark L. Onizapali <i>Asst. Chief</i></p>	<p>Receipt Analysis & Control Division Victor A. Holmes <i>Chief</i> Craig Taylor <i>Asst. Chief</i></p>

U.S. COPYRIGHT OFFICE LEADERSHIP



Maria A. Pallante

United States Register of Copyrights and Director

As United States Register of Copyrights, Maria A. Pallante directs the legal, policy, and business activities of the United States Copyright Office. The Copyright Office administers important provisions of Title 17, including the nation's copyright registration and recordation systems and certain statutory licenses. The Register and her staff lead public discussions in the field of copyright law, act as principle advisors to the Congress on matters of domestic and international copyright policy, and support a variety of intellectual property efforts across the U.S. government, including appellate litigation, trade negotiations, and treaty implementations. Ms. Pallante assumed her duties on June 1, 2011, after serving five months as Acting Register. Ms. Pallante has extensive experience as an intellectual property lawyer in both the public and private sectors.

Prior to her appointment in 2011, Ms. Pallante held two senior positions in the U.S. Copyright Office, serving first as Deputy General Counsel (2007–2008) and then as Associate Register & Director of Policy and International Affairs (2008–2010). From 1999–2007, she was Intellectual Property Counsel and Director of Licensing for the worldwide Guggenheim Museums, headquartered in New York. She also worked for two authors' organizations in New York, serving first as Assistant Director of the Authors Guild, Inc. and then as Executive Director of the National Writers Union, in each case working on copyright policy, transactions, litigation, and freedom of expression issues. She practiced briefly with the Washington, D.C., law firm and literary agency Lichtman, Trister, Singer and Ross, and completed a clerkship in administrative law for the appellate division of the U.S. Department of Labor.

Ms. Pallante is a 1990 graduate of the George Washington University Law School. She earned her bachelor's degree in history from Misericordia University in Pennsylvania, where she was also awarded an honorary doctorate of humane letters.

FOCUS OF TENURE

Under Ms. Pallante's leadership, the U.S. Copyright Office commenced a two-year evaluative process to address current complexities in the copyright system and to prepare the Copyright Office for future challenges. She released the public paper *Priorities and Special Projects of the United States Copyright Office* in October 2011, which identified seventeen priorities in policy and administrative practice and ten special projects for the Office. Using the *Priorities* document as a guide, the Copyright Office engaged with colleagues and customers across the public and private sectors to discuss a variety of issues relating to the quality and efficiency of Copyright Office services and possible future directions. Some of these discussions took the form of meetings or public roundtables outside the capital city, including Los Angeles, Silicon Valley, New York, and Nashville. The public feedback from this effort will help to define the Office's long-term strategic plan.

In March 2013, Ms. Pallante helped initiate a comprehensive congressional review of U.S. copyright law, through her Horace S. Manges Lecture *The Next Great Copyright Act*, presented at Columbia Law School, as well as subsequent testimony before the House Judiciary Committee. In November 2013, she delivered the Christopher Meyer Memorial Lecture at the George Washington University School of Law, entitled *The Next Generation Copyright Office: What it Means and Why it Matters*. Other speeches include *Review and Reflection: Copyright Hearings and Related Discourse in the Nation's Capital* (February 2014); *ASCAP at 100* (February 2014); *The Curious Case of Copyright Formalities* (April 2013) and *Orphan Works & Mass Digitization: Obstacles & Opportunities* (April 2012).

In December 2014, Ms. Pallante released the first comprehensive revision of the *Compendium of U.S. Copyright Office Practices* in more than two decades. She has delivered to Congress the following policy studies: *Orphan Works and Mass Digitization* (June 2015), *Copyright and the Music Marketplace* (February 2015), *Resale Royalties: An Updated Analysis* (December 2013), *Copyright Small Claims* (September 2013), *Federal Copyright Protection for Pre-1972 Sound Recordings* (December 2011), *Legal Issues in Mass Digitization: A Preliminary Analysis and Discussion Document* (October 2011) and *Report on Marketplace Alternatives to Replace Statutory Licenses* (August 2011). Several studies are pending, including on the making available right and visual works.

Ms. Pallante has created several new programs to bring additional expertise to the Office. These include the Barbara A. Ringer Copyright Honors Fellowship, a distinguished public service clerkship for attorneys in the early stages of their careers, and the Abraham L. Kaminstein Scholar in Residence Program, an opportunity for

leading academics to work at the Copyright Office on mutually beneficial projects. Her educational initiatives include the Copyright Matters Lecture Series, a community forum by which industry experts discuss the practical implications of copyright law in the 21st century, and the Copyright Academy, an internal program by which staff study a variety of complex legal provisions and judicial interpretations. She created a research program for law schools, in which professors design courses and projects around timely issues and students receive support and direction throughout the semester from Copyright Office experts.

ABOUT THE U.S. COPYRIGHT OFFICE

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U.S. COPYRIGHT OFFICE LEADERSHIP

Douglas P. Ament
Chief Information Officer

Douglas P. Ament is the Chief Information Officer for the United States Copyright Office (USCO). He was appointed to the position in 2013.

In his position as Chief Information Officer, Ament manages the USCO IT enterprise, including strategic planning efforts, digital security initiatives, policy development, and operational and maintenance activities, as well as all research and development of new technologies that support the business processes and mission of the Office.

Ament formerly served as the Director of Information Technology for the USCO since April 2009 and Chief of the Copyright Technology Office since July 2008. He led a major technical upgrade analysis for the USCO as part of the Register's 2011-2013 special projects, in which stakeholders from across the copyright spectrum offered recommendations and information about possible future strategies. Prior to joining the USCO, he served in the Library of Congress Information Technology Services directorate, and before that a federal IT consultant for more than 20 years supporting clients, including the U.S. Department of Justice, U.S. Coast Guard, U.S. Postal Service Headquarters, and the U.S. Navy.

ABOUT THE USCO

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U.S. COPYRIGHT OFFICE LEADERSHIP**Jacqueline C. Charlesworth****General Counsel and Associate Register of Copyrights**

Jacqueline C. Charlesworth is the General Counsel and Associate Register of Copyrights for the United States Copyright Office (USCO). She was appointed to the position in 2013.

In her position as General Counsel, Charlesworth provides legal guidance to the various divisions and programs of the USCO, including the national registration and recordation systems, and is frequently called upon by Congressional offices, the Department of Justice and other federal agencies for advice and assistance. She also has the primary responsibility for the formation and promulgation of regulations and the adoption of legal positions governing policy matters and practices of the USCO.

Charlesworth joined the USCO in 2012 following several years of private practice at New York City law firms, including Morrison & Foerster, LLP, where she represented copyright owners and users of copyrighted works in litigation, regulatory, and transactional matters. From 2006–2008, she served as Senior Vice President and General Counsel of the National Music Publishers' Association and from 2001 to 2006 was General Counsel of The Harry Fox Agency, Inc., the leading agency in the United States for the licensing of mechanical rights in musical works.

ABOUT THE USCO

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U.S. COPYRIGHT OFFICE LEADERSHIP**David J. Christopher****Chief of Operations**

David J. Christopher is the Chief of Operations for the United States Copyright Office (USCO). He was appointed to the position in 2012.

In his position as Chief Operating Officer, Christopher supervises the day-to-day operations of the USCO, including financial controls, budget, human capital, statutory royalty investments, mandatory deposit and acquisitions, contracts, and strategic planning functions. He works closely with senior managers in technology, registration, policy and the greater Library of Congress.

ABOUT THE USCO

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U.S. COPYRIGHT OFFICE LEADERSHIP**Karyn Temple Claggett****Associate Register of Copyrights and Director of Policy & International Affairs**

Karyn Temple Claggett is the Associate Register of Copyrights and Director of Policy and International Affairs for the United States Copyright Office (USCO). She was appointed to the position in 2012.

In her position, Temple Claggett assists the Register with critical policy functions of the USCO, including domestic and international policy analyses, legislative support, and trade negotiations. She directs the Office of Policy and International Affairs, which represents USCO at meetings of government officials concerned with the international aspects of intellectual property protection, and provides regular support to Congress and its committees on statutory amendments and construction.

Prior to joining USCO, Temple Claggett served as Senior Counsel to the Deputy Attorney General of the United States, where she assisted with the formulation of Department of Justice policy on sensitive legal issues, and helped manage the Department of Justice's Task Force on Intellectual Property. She also spent several years in private practice as Vice President, Litigation and Legal Affairs for the Recording Industry Association of America and at the law firm Williams & Connolly, LLP. She began her legal career as a trial attorney for the U.S. Department of Justice's Civil Division through its Honors Program and also served as a law clerk to the Honorable Nathaniel R. Jones of the U.S. Court of Appeals for the Sixth Circuit.

ABOUT THE USCO

The U.S. Copyright Office, and the position of Register of Copyrights, were created by Congress in 1897 as a separate department of the Library of Congress. Today, the employees of the Office examine and process more than a half a million claims to copyright registration, and record thousands of documents related to registrations on file in the Office's extensive catalogue. The Office also has critical law and policy functions prescribed to it by the Congress, including: domestic and international policy analyses; legislative support; litigation activities; support for the courts and executive branch agencies (including significant effort on trade and antipiracy initiatives); participation on U.S. delegations in meetings with foreign governments or private parties; hosting copyright training for officials from developing countries; and providing public information and educational outreach.

Revised 09/22/2015

U.S. COPYRIGHT OFFICE LEADERSHIP**Robert J. Kasunic****Associate Register of Copyrights and Director of Registration Policy & Practice**

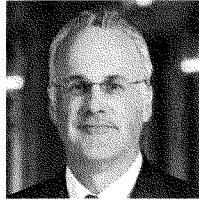
Robert J. Kasunic is the Associate Register of Copyrights and Director of Registration Policy and Practice for the United States Copyright Office (USCO). He was appointed to the position in 2012.

In his position, Kasunic heads the Office of Registration Policy and Practice, which administers the U.S. copyright registration system and advises the Register on questions of registration policy and related regulations and interpretations of copyright law. He is a recognized copyright expert and is one of four legal advisors to the Register.

Kasunic joined the USCO in 2000 as a senior attorney in the Office of General Counsel after having previously engaged in private practice. He currently serves an adjunct professor of law at the Georgetown University Law Center and American University's Washington College of Law.

ABOUT THE USCO

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U.S. COPYRIGHT OFFICE LEADERSHIP**William J. Roberts, Jr.****Associate Register of Copyrights and Director
of Public Information and Education**

William J. Roberts, Jr. is the Associate Register of Copyrights and Director of Public Information and Education for the United States Copyright Office (USCO). He was appointed to the position in 2014.

In his position, Roberts heads the Office of Public Information and Education which informs and carries out the work of the USCO and the Register by providing authoritative information about the copyright law to the public, and education through various public outreach programs. The Office of Public Information and Education publishes the copyright law and other provisions of title 17, maintains a robust and accurate public website, creates and distributes a variety of circulars, information sheets, and newsletters. In addition, the Office responds to public inquiries regarding provisions of the law, explains registration policies and practices and other copyright-related topics, and plans and executes a variety of educational activities and outreach.

Roberts joined the USCO in 1987 as an attorney in the Office of General counsel after having previously engaged in private practice. He was a Judge on the U.S. Copyright Royalty Board from 2006-2013, and was previously an adjunct professor at the Catholic University Columbus School of Law and the George Mason University School of Law.

ABOUT THE USCO

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U.S. COPYRIGHT OFFICE LEADERSHIP**Elizabeth R. Scheffler****Director, Office of Public Records and Repositories**

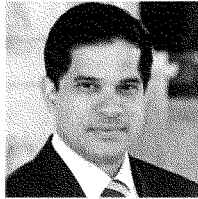
Elizabeth R. Scheffler is the Director of the Office of Public Records and Repositories for the United States Copyright Office (USCO). She was appointed to the position in 2014.

In her position, Scheffler heads the Office of Public Records and Repositories, which establishes records policies and oversees significant databases of copyright ownership and related information. Her duties include ensuring the storage and security of copyright deposits, recording licenses and transfers of copyright ownership, researching and providing certified and uncertified reproductions of copyright deposits, and maintaining the official records of the USCO.

Prior to her current position, Scheffler was Chief of Operations for the USCO from 2008 to 2011. She has held senior positions at the Library of Congress, the National Ocean Service of NOAA, and the National Air and Space Museum of the Smithsonian Institution.

ABOUT THE USCO

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U.S. COPYRIGHT OFFICE LEADERSHIP

Sarang V. Damle
Deputy General Counsel

Sarang (Sy) Damle is Deputy General Counsel for the United States Copyright Office (USCO). He was appointed to the position in 2015.

Damle assists the General Counsel on the full range of legal issues before the Office, including litigation, policy studies, and regulatory proceedings. He also helps provide legal advice and assistance to the various components of the USCO, the U.S. Department of Justice, and other federal agencies.

Damle joined the USCO in 2014 after several years of government service. From 2013 to 2014, he was Senior Counsel in the Consumer Financial Protection Bureau. Before that, Damle was an appellate litigator in the Department of Justice's Civil Division, where he served as lead counsel in over 40 appeals, with a focus on intellectual property, separation of powers, and administrative law matters. Damle began his legal career as a law clerk to the Honorable Sandra L. Lynch of the U.S. Court of Appeals for the First Circuit.

ABOUT THE USCO

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Revised 01/09/2015

U.S. COPYRIGHT OFFICE LEADERSHIP**Erik Bertin****Deputy Director for Registration Policy & Practice**

Erik Bertin is Deputy Director for Registration Policy and Practice for the United States Copyright Office (USCO). He was appointed to the position in 2015. Bertin assists the Associate Register of Copyrights and Director of Registration Policy and Practice on a full range of legal, policy, and governance issues involving the USCO and its administrative responsibilities.

Bertin joined the USCO in 2011 as an Attorney-Advisor in the Office of Policy and International Affairs and served as an Assistant General Counsel from 2013 to 2015. Before joining the Office, he worked in private practice for fifteen years in Washington, DC where he represented a wide range of clients in intellectual property matters.

ABOUT THE USCO

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Revised 04/06/2015

U.S. COPYRIGHT OFFICE LEADERSHIP**Catherine R. Rowland****Senior Advisor to the United States Register of Copyrights**

Catherine R. Rowland is Senior Advisor to the United States Register of Copyrights. She was appointed to the position in 2015.

In her position, Rowland assists the Register on a full range of policy, legal, and governance issues relating to the United States Copyright Office (USCO) and its agency responsibilities.

Rowland joined the USCO in 2010 as Attorney-Advisor for the Copyright Office's Office of the General Counsel and also served as Senior Counsel for Policy and International Affairs from 2012 to 2015. Before joining the Office, she served several years in private law practice in Washington, D.C., where she represented a variety of companies in intellectual property matters. Rowland began her legal career as a law clerk for the Honorable N. Carlton Tilley, Jr., of the United States District Court for the Middle District of North Carolina.

ABOUT THE USCO

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Revised 05/19/2015

U.S. COPYRIGHT OFFICE LEADERSHIP**Maria Strong****Deputy Director of Policy & International Affairs**

Maria Strong is the Deputy Director of Policy and International Affairs for the United States Copyright Office (USCO). She was appointed to the position in 2015.

Strong assists the Associate Register of Copyrights and Director of Policy and International Affairs on issues involving domestic and international copyright law and policy, trade negotiations, and legislation. She represents the USCO at meetings of foreign government officials concerned with the international aspects of intellectual property protection, serves on interagency committees, and provides regular support to Congress and its committees.

Upon joining the USCO in 2010, Strong served as Senior Counsel for Policy and International Affairs, and also served as Acting General Counsel in April-July 2013. Before joining the Office, she served 19 years in private law practice in Washington, D.C. where she represented clients in the media, technology and entertainment sectors and provided analyses and advocacy on global and domestic issues involving copyright law, enforcement, trade policy and e-commerce. She began her legal career as a staff attorney at the Federal Communications Commission.

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Revised 01/09/2015

U.S. COPYRIGHT OFFICE LEADERSHIP



Ricardo Farraj-Feijoo
Director of Copyright Technology Office

Ricardo Farraj-Feijoo is the Director of the Copyright Technology Office for the United State Copyright Office (USCO). He was appointed to the position in January 2015.

Mr. Farraj-Feijoo is responsible for the oversight and administration of technology issues affecting registration and recordation and provides leadership on the development and implementation of technology initiatives. He oversees compliance issues with federal law, regulations, information technology standards, and best practices. Prior to joining USCO, Farraj-Feijoo served as the Director of Information Technology Services within the Office of the Chief Information Officer at the U.S. Department of Commerce, where he implemented cloud-based solutions as well as server virtualization farms. He also worked in the information technology department of the Library of Congress and for the Congressional Research Service. Mr. Farraj-Feijoo is a veteran of the U.S. Army.

ABOUT THE USCO

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Revised 02/23/2015

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Congress of the United States

House of Representatives

COMMITTEE ON HOUSE ADMINISTRATION

1309 Longworth House Office Building
Washington, D.C. 20515-6157
(202) 225-8281
<http://cha.house.gov>

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CONGRESS

JAMIE FLEET, MINORITY STAFF DIRECTOR

July 14, 2016

Maria A. Pallante
Register of Copyrights
The Library of Congress
101 Independence Ave. SE
Washington, D.C. 20540

Dear Register Pallante,

Thank you for your letter of March 7, 2016. We appreciate your assistance in responding to our further questions on the Copyright Office (USCO). In reviewing your responses staff has identified some areas requiring further information as well as additional questions. The Committee requests you respond to these additional questions that will be made part of the hearing record. Please provide your responses to the following questions to the Legislative Clerk, C. Maggie Moore (Maggie.Moore@mail.house.gov) with the Committee by **August 12, 2016**.

Follow up Questions from Previous Request:

1. **Q1. During this year's scheduled annual maintenance ...**
Please provide copies of all communications to and from the Copyright Office in the summer of 2015 regarding running Copyright Office systems from the Alternate Computer Facility (ACF) to avoid taking public facing IT systems offline during the AOC testing period.
2. **Q4. ... What changes in LOC policies and regulations would be required for you to take beneficial use of such innovative capabilities?**
Please provide specific citations in existing Library of Congress regulations and policies that the Library should consider changing.
3. **Q5. ... What, if any, are the outstanding actions to prevent another outage and the status of these actions?**
Has the USCO completed one or more Service Level Agreements, Memoranda of Understanding with the Library or the Office of the CIO? If so, please provide copies. If your office has not completed requested agreements or SLAs that other Library Service Units have please explain what issues are preventing USCO and OCIO from completing these agreements? Please provide a copy of your proposed Service Level Agreements to the Library. If there a formal process between USCO and OCIO to track resolution of issues which contributed to the 2015 service

outage? What are the outstanding actions, if any, from both USCO and LOC in specific detail?

4. Q27. What services besides IT are currently provided by the Library of Congress to Copyright?

Please identify the dollar value for each of the 5 categories you documented in your response for Fiscal Years 2013, 2014, and 2015.

Additional Questions:

5. The Copyright Office received a number of comments on how modernizing the office's IT and services should be funded. If the office makes the policy determination that modernization should be paid for solely with user fees, does the office currently have the statutory authority to include modernization costs in the "reasonable cost" of providing your services? If not, please provide the basis and the precedent for this determination.
6. Does 17 U.S. Code § 708(b) allow for the ongoing costs of upgrading or replacing obsolete computer equipment and software to be considered in the "reasonable cost" of providing your services? If not, please provide the basis and the precedent for this determination.
7. The Copyright Office's Proposed Schedule and Analysis of Copyright Fees states that your office uses the "Federal Accounting Standards Advisory Board's (FASAB) guidelines for determining the full cost of federal agency program activities and the Office of Management and Budget's (OMB) Circular A-25 Revised: User Charge document regarding costing guidelines and establishing user fees" for determining the reasonable cost of providing your services.
Has your office sought guidance or recommendations from the FASAB or OMB on whether the expense of upgrading or replacing obsolete computer systems, infrastructure, and software should or could be accounted for in the cost of providing your services? If so, please provide any correspondence between your office and the FASAB or OMB on this issue.
8. FASAB guidelines state that the costs of computer equipment and software that are to be in use for over two years should be capitalized. Has the Copyright Office been including the expenses from depreciation or amortization of computer equipment and software in determining the "reasonable cost" of providing your services? If so, please provide your depreciation/amortization schedules for computer equipment and software, and what dollar amount or percentage these expenses contribute to the "reasonable cost" of providing your services.
9. Please describe in detail the authorities and responsibilities of Copyright's Chief Information Officer.
10. In your response to question 5, you indicate that the 2015 service level agreement ("SLA") presented by the Library of Congress lacked sufficient detail. Please elaborate with specificity which details were lacking.
11. It is our understanding that Copyright is the only service unit to not agree to the SLA. Why?
12. Please provide all communications between Copyright and LoC regarding the SLA.
13. In your response to question #27 when asked about impact on the customer base should Copyright transition from under LoC you replied that a transition plan would be necessary. Has Copyright performed or commissioned any studies or analysis of this?

14. Please describe the review process used by Copyright when determining whether or not to approve an SLA.
15. Please provide any memoranda of understanding or similar agreements between Copyright and the Library of Congress.

If you have any questions concerning this matter, please feel free to contact Brad Walvort on the Committee Staff at (202) 225-8281. Thank you again for your testimony and previous response. We look forward to hearing from you.

Sincerely,

A handwritten signature in black ink that reads "Candice S. Miller". The signature is written in a cursive, flowing style.

Candice S. Miller
Chairman



The Register of Copyrights of the United States of America
United States Copyright Office · 101 Independence Avenue SE · Washington, DC 20559-6000 · (202) 707-8350

August 12, 2016

Chairman Candice S. Miller
Committee on House Administration
House of Representatives
1309 Longworth House Office Building
Washington, D.C. 20515-6157

Re: Questions for the Record Regarding the December 2, 2015 Hearing
Improving Customer Service for the Copyright Community

Dear Chairman Miller:

As requested, please find enclosed the written responses to your July 14, 2016 letter containing questions for the record. In addition, we include documents that provide relevant information.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Maria A. Pallante".

Maria A. Pallante
Register of Copyrights and Director
U.S. Copyright Office

Enclosures

cc: David Mao
Acting Librarian of Congress

U.S COPYRIGHT OFFICE
Library of Congress
Responses to July 14, 2016 Request for Responses to Questions for the Record

Committee on House Administration
United States House of Representatives

Follow up Questions from Previous Request:

1. **Q1. During this year's scheduled annual maintenance ...**
Please provide copies of all communications to and from the Copyright Office in the summer of 2015 regarding running Copyright Office systems from the Alternate Computer Facility (ACF) to avoid taking public facing IT systems offline during the AOC testing period.

A1. Please see attached.
2. **Q4 ... What changes in LOC policies and regulations would be required for you to take beneficial use of such innovative capabilities?**
Please provide specific citations to existing Library of Congress regulations and policies that the Library should consider changing.

A2. Under existing Library regulations and practices, all federal contracting, including for IT services, goes through the Library's agency-wide contracting office and staff, prohibiting principals in the Copyright Office from contracting directly with outside vendors. See LCR 212-2, 2100, 2111, and 2112. Based upon this process, the Copyright Office has no authority to directly engage the services of GSA's 18F or the many other service providers that could be partners in the IT modernization plan the Office vetted publicly last year. The Copyright Office has thus suggested that it would be most effective for the Office to hire its own bonded, contracting officers, separating from the agency-wide Library contracts office, but following all applicable statutes, regulations, and best practices in this area. Likewise, to the extent the Copyright Office is hiring technology and business experts on its staff, dedicated staffing processes should be considered, as should all related appropriations and budgeting processes and relationships.
3. **Q5 ... What, if any, are the outstanding actions to prevent another outage and the status of these actions?**
Has the USCO completed one or more Service Level Agreements, Memoranda of Understanding with the Library or the Office of the CIO? If so, please provide copies. If your office has not completed requested agreements or SLAs that other Library Service Units have please explain what issues are preventing USCO and OCIO from completing these agreements? Please provide a copy of your proposed Service Level Agreements to the Library. If there a formal process between USCO and OCIO to track resolution of

issues which contributed to the 2015 service Outage? What are the outstanding actions, if any, from both USCO and LOC in specific detail?

A3. The process for negotiating SLAs and MOUs is necessarily fluid, as the Library works to assess, improve, and plan future IT services. Yesterday afternoon, the Library's CIO informed the Copyright Office that his office no longer plans to utilize internal SLAs and thus will not be executing one with the Copyright Office. Rather, according to the CIO, who consulted with GAO, his office is planning to incorporate baseline commodity and enterprise IT service offerings into a service catalog that will replace the need for individual service unit SLA agreements. The OCIO further stated that the service catalog will be published before the end of the FY16 and that MOUs will be used to address any mission specific needs of the Copyright Office that are not covered in the OCIO's initial service catalog. We understand that the OCIO also has relayed this information to the Committee. This decision therefore negates the further negotiation and execution of an SLA, though the Copyright Office will proceed with reviewing and discussing all services and associated costs with the OCIO when these are ready.

By way of history, to respond to the question asked, the Library presented a working draft to the Copyright Office last fall (2015), but subsequently indicated that a more complete document would soon be made available. The Office provided input regarding the SLA for the Library to consider and has otherwise worked actively with the OCIO. As part of this effort, the Copyright Office recently provided the Library with proposed revisions in writing, including appropriate caveats to memorialize the agreement of the Copyright Office and OCIO that the SLA would inevitably need to be revised to address future decisions and directions, including changes in technology planning and implementation.

Regarding MOUs, the Copyright Office signed limited Memoranda of Understanding (MOU) between 2007 and 2013 that address a number of specific IT needs, such as the hosting of eCO and the development of an incident and service request management workspace for the Office. And, the Library presented the Copyright Office with a new draft MOU at the beginning of this year (2016). The Copyright Office has participated in regular meetings with OCIO staff and provided written comments regarding the draft MOU; in turn, the Library provided proposed revisions to the MOU. The Copyright Office continues to have comments on the draft MOU, including a primary concern that an appropriate SLA should be implemented, or alternatively, OCIO's forthcoming service catalog published, before the MOU is finalized. The Copyright Office will continue to collaborate with the Library to finalize the MOU, and appreciates the assurances of the OCIO that neither it nor other parts of the agency should feel pressured to sign the MOUs prior to resolution of outstanding issues.

Regarding the outage, the Library is responsible for the design and implementation of IT infrastructure services such as database and network services and the Copyright Office does not have control over or visibility into these areas. Accordingly, the OCIO is charged with identifying, managing, and tracking resolution of issues that contributed to the 2015 outage. While the Library has not established a formal process between it and

the Copyright Office to track resolution of issues that contributed to the 2015 service outage, members of the Copyright Technology Office and the Copyright Chief Information Officer communicate regularly with their counterparts in OCIO regarding broad-based IT issues.

Finally, we also note that both the Acting Librarian and the Register of Copyrights testified that they requested a third party investigation of the 2015 outage, through the Office of the Inspector General (OIG), which will assist in more formally isolating contributing factors, and the Copyright Office has provided the OIG with information the Office has relating to the root cause analysis of the outage.

4. Q27. What services besides IT are currently provided by the Library of Congress to Copyright?

Please identify the dollar value for each of the 5 categories you documented in your response for Fiscal Years 2013, 2014, and 2015.

A4. As mentioned in the Copyright Office's initial response to Question 27, the Library provides certain day-to-day services to the Copyright Office, including some relating to IT, facilities, human capital, financial management, federal contracting, and other limited services. The Copyright Office, however, does not have the Library's financial information for these services, and thus does not have the information necessary to identify the Library's costs for providing these services. Indeed, we do not believe the Library has tracked or been required to track the value or cost of these services to its divisions.

Likewise, although the Copyright Office administers provisions of the Copyright Act that inure to the benefit of the Library's national collection by providing copies of copyrighted works that are consistently worth about \$30 million dollars a year, this value has never been calculated as part of the fiscal relationship between the Library proper and the Copyright Office or the Copyright Office's budget.

Additional Questions:

5. *The Copyright Office received a number of comments on how modernizing the office's IT and services should be funded. If the office makes the policy determination that modernization should be paid for solely with user fees, does the office currently have the statutory authority to include modernization costs in the "reasonable cost" of providing your services? If not, please provide the basis and the precedent for this determination.*

A5. The Copyright Office received sixty-three comments representing large and small copyright owners, and legal practitioners from across the country who are members of the American Bar Association and AIPLA, among others. Most of these overwhelmingly supported the Copyright Office's 2015 draft IT plan. As directed, the Register of Copyrights sent a detailed letter to appropriators and authorizers on May 9, 2016, outlining the Copyright Office's recommendation that modernization be funded through a 50/50 split of fees to appropriations, and that ongoing operations otherwise should be

funded through a split of 2/3 fees and 1/3 appropriations, especially taking into account the benefits of a modern copyright system to businesses that rely upon and use copyrighted works and data and the public welfare. *See* Letter from M. Pallante, Register of Copyrights, to Hon. Tom Graves, Chairman, Subcommittee on Legislative Branch (May 9, 2016), *available at* <http://www.copyright.gov/reports/usco-it-funding-strategy.pdf>.

In this funding strategy, the Copyright Office also reiterated its previous testimony that that the Register's fee authority needs to be modernized to provide more statutory flexibility to assess costs in the aggregate, to assess certain capital costs and provide for multi-year spending, and to ensure appropriate flexibility to accommodate the general public and small copyright owners. In addition, recently it has become clear to both the Copyright Office and the Library that the agency needs to examine the Library's practice of charging and retaining certain fees for the provision of bulk copyright data (a long-term process that appears to be related the Library's sales of catalogs). This practice needs to be brought into alignment with the Copyright Office's fee authority under Section 708 of the Copyright Act as well as the processes of the Administrative Procedures Act. And the Copyright Office will need more information regarding what it will be asked to contribute to the Library in terms of payment for services and what particular services are at issue and need to be costed.

The Copyright Office's fee-setting authority under Section 708 states that, for most fees, the Register may "adjust fees to not more than that necessary to cover the reasonable costs incurred by the Copyright Office for the services described in paragraph (1), plus a reasonable inflation adjustment to account for any estimated increase in costs." Additionally, Section 708 states that these fees must be "fair and equitable and give due consideration to the objectives of the copyright system." The Office strictly construes Section 708 to allow for pricing based only on the historical cost of providing the specific services set forth in Section 708, plus inflation, and does not interpret the provision to allow for pricing to include major capital expenses such as a complete modernization of Copyright Office IT enterprise, systems, cloud services and software. This is consistent with how the Copyright Office calculated fees during and since the Office's first generation eCO online filing system. The Copyright Office looks forward to working with Congress to potentially expand its ability to adjust fees more flexibly.

6. *Does 17 U.S. Code § 708(b) allow for the ongoing costs of upgrading or replacing obsolete computer equipment and software to be considered in the "reasonable cost" of providing your services? If not, please provide the basis and the precedent for this determination.*

A6. The Copyright Office does use some fees to fund, in part, the ongoing costs of upgrading or replacing obsolete computer equipment and software, which are considered part of the reasonable cost of providing the services set forth in Section 708(a)(1)–(9). The Library currently provides a large percentage of the Copyright Office's hardware and software pursuant to appropriated dollars received by the Library.

7. *The Copyright Office's Proposed Schedule and Analysis of Copyright Fees states that your office uses the "Federal Accounting Standards Advisory Board's (FASAB) guidelines for determining the full cost of federal agency program activities and the Office of Management and Budget's (OMB) Circular A-25 Revised: User Charge document regarding costing guidelines and establishing user fees" for determining the reasonable cost of providing your services. Has your office sought guidance or recommendations from the FASAB or OMB on whether the expense of upgrading or replacing obsolete computer systems, infrastructure, and software should or could be accounted for in the cost of providing your services? If so, please provide any correspondence between your office and the FASAB or OMB on this issue.*

A7. In establishing its fees, the Copyright Office reviews and relies on the comprehensive public guidance issued by FASAB and OMB in determining the reasonable cost of providing services, but the current Copyright Office staff has not sought specific guidance or recommendations from either agency.

8. *FASAB guidelines state that the costs of computer equipment and software that are to be in use for over two years should be capitalized. Has the Copyright Office been including the expenses from depreciation or amortization of computer equipment and software in determining the "reasonable cost" of providing your services? If so, please provide your depreciation/amortization schedules for computer equipment and software, and what dollar amount or percentage these expenses contribute to the "reasonable cost" of providing your services.*

A8. The Copyright Office relies on FASAB Sections 4 and 7 when assessing fees under Section 708, and these relevant provisions describe accounting for operating, and not capital, costs. The Office thus does not include the expenses from depreciation or amortization of computer equipment and software when determining the reasonable cost of Office services.

9. *Please describe in detail the authorities and responsibilities of the Copyright's Chief Information Officer.*

A9. The authorities and responsibilities of the Copyright Office's Chief Information Officer are spelled out in the Library's Position Description, a copy of which is attached.

10. *In your response to question 5, you indicate that the 2015 service level agreement ("SLA") presented by the Library of Congress lacked sufficient detail. Please elaborate with specificity which details were lacking.*

A10. As set forth in the Copyright Office's prior correspondence with the Library, which is included in response to question 12, the Office identified many areas in the SLA as lacking in detail, including but not limited to:

- An incomplete service desk catalog
- Details on how identified metrics will be calculated, measured, and reported, and identification of any metrics related to customer satisfaction

- Details on the service unit costs for services related to desktop computing, including what software and updates are included in the Library's provision of core services
- Discussion of areas of service not mentioned in the SLA, including backup and recovery, asset management, remote access, and change management support (both administrator and engineering support)
- Additional information on various items identified in the SLA's Service Level Target Table including:
 - What is included in the services of Information Security Management
 - Whether servicing of laptops and desktops are included
 - Whether hosting services, messaging, and collaboration are available during prime hours and after hours
- More granular treatment of availability metrics tailored towards the service offered, and an explanation of how services will be available at "99%" when each particular IT service is only available from the OCIO Service Desk during Normal Business Hours
- Discussion of the refresh cycles for different types of equipment
- Details regarding appropriate notification procedures and escalation paths
- A mechanism for auditing and/or providing an independent verification and validation that the Library is fulfilling the services outlined in the SLA to the Copyright Office

As mentioned above, the Copyright Office recently provided the Library with a copy of its proposed revisions to the draft SLA (a copy of which is also enclosed with this response), but this process has been overtaken by the Library's communication to the Copyright Office yesterday in which it noted that it will focus not on SLAs but, rather, a service catalog and MOUs.

11. *It is our understanding that the Copyright Office is the only service unit not to agree to the SLA. Why?*

A11. As noted above, the Library is no longer planning to utilize an SLA with the Copyright Office, but the Copyright Office did provide input regarding the draft SLA provided by the Library, including a markup of the Library's draft. SLAs are important business documents and there will be multiple other SLAs as the Copyright Office modernizes, including with outside service vendors selected for various functions.

More generally, the Copyright Office cannot speculate as to the actions of other major units with regard to their separate SLAs with the Library, but assumes that each service unit is driven by considerations based on its individual business needs. We respectfully note that no other part of the Library has as significant an IT requirement as the Copyright Office, which interacts with a global marketplace of content and technology platforms, and provides services to private parties who pay fees and rely on the Office for documentation and certification of intellectual property rights, licensing information and related business data. To this end, IT is a tool by which the Copyright Office carries out its statutory responsibilities.

12. Please provide all communications between Copyright and LoC regarding the SLA.

A12. In response to this request, we are attaching communications of the Copyright Office Chief Information Officer and members of the Copyright Technology Office with the Library, including its OCIO, regarding the draft SLA presented to the Office in the summer of 2015.

13. In your response to question #27 when asked about impact on the customer base should Copyright transition from under LoC you replied that a transition plan would be necessary. Has Copyright performed or commissioned any studies or analysis of this?

A13. The Copyright Office has not performed or commissioned a study or analysis regarding the potential impact on the customer base during a transition period in the event Congress acts to establish the Copyright Office as an independent agency. See Response to Question 23 of the February 1, 2016 Questions for the Record.

In responding to the previous question, the Copyright Office explained that the particulars of any transition plan would stem from the specifics of the authorizing legislation. For example, the Copyright Office for the Digital Economy Act, H.R. 4241, includes language regarding the transfer of administrative functions, the potential for separate facilities, and a requirement that the new head of the Copyright Office provide a status report to Congress.

14. Please describe the review process used by Copyright when determining whether or not to approve an SLA.

A14. Under the Office's current practices, members of the Copyright Technology Office and the Copyright Chief Information Officer would typically review an SLA to identify issues that might support or prevent adoption of an SLA. Once these issues have been resolved, the Copyright CIO would present the SLA for legal review to the Copyright Office, Office of General Counsel and, ultimately, for approval by the Register of Copyrights. This diligence reflects the fact that an SLA is by its nature a negotiated and binding document that affects the services the Copyright Office is required to provide under the Copyright Act.

15. Please provide any memoranda of understanding or similar agreements between Copyright and the Library of Congress.

A15. Please see attached.

QUESTION 1

Ament, Douglas

From: Scheffler, Elizabeth
Sent: Friday, March 27, 2015 12:08 PM
To: Ament, Douglas
Subject: Re: ACF failover during annual shutdown (Aug 28-31)

I would like us to do this

Let me have us speak with the IT team on how to approach

Sent from my iPhone

On Mar 27, 2015, at 11:15 AM, Ament, Douglas <dament@loc.gov> wrote:

Are we still okay with this?

From: Schlesier, Gustave
Sent: Friday, March 27, 2015 11:01 AM
To: Ament, Douglas
Cc: Farraj-Feijoo, Ricardo; Wofford, Denise; Curtiss, Dan
Subject: ACF failover during annual shutdown (Aug 28-31)

Doug,

Per your email last week, I wanted to follow up with you to see if we are still a go for failing over to the ACF prior to the PCF weekend shutdown and failing back over following the shutdown.

We need to start interfacing with the ITS folks due to the additional complexities involved with constrained resourcing and ingesting live data from the public as well as having refreshed the ACF hardware (planned) and converting the PCF and ACF to 64 bit.

Please confirm with Liz that ITS can support this activity at your earliest convenience.

Thanks,

Gus

Gustave Schlesier, PMP, MBA
 PM, CTO/eCO Project Program Manager
 Copyright Technology Office (CTO)
 United States Copyright Office
 101 Independence Avenue, SE
 Washington DC 20540-6001
 202.707.7451 - office
 202.252.3668 - fax
 gsch@loc.gov
 <image001.png><image002.png>
 <image003.png>
 <image004.jpg>

Farraj-Feijoo, Ricardo

From: Schlesier, Gustave
Sent: Monday, March 30, 2015 7:04 AM
To: Curtiss, Dan; Freeman, Loretta; Alan, Vijay[CTR]; Kurl, Bimal[CTR]; Wilson, Tina; Nelson, Carrie A.
Cc: Farraj-Feijoo, Ricardo; Wofford, Denise
Subject: ACF Failover during annual power outage
Attachments: ACF_Failover_Test_03_07-08_2015_Checklist_V7R10.xlsx

All,

I've received official word from Doug (and Liz) that we will be failing over to the ACF during the annual power outage and building shutdown. We need to start planning as this will have a few extra wrinkles to add to the complexity

We will also be testing the refreshed hardware and the updated (64 bit) OS modifications to the system. As this is public data, we need to be extra sure that everything is captured and transferred back.

I've attached the schedule from the last exercise and I will be attempting to get the lessons learned wrapped up ASAP so that we can incorporate them into the new schedule.

Please start your respective planning and communicating with resources so that we can get this lined up as quickly as possible.

If you have any questions, please contact me or Dan.

Thanks,

Gus

Gustave Schlesier, PMP, MBA
PM, CTO/eCO Project Program Manager
Copyright Technology Office (CTO)
United States Copyright Office
101 Independence Avenue, SE
Washington DC 20540-6001
202.707.7451 - office
202.252.3668 - fax
gsch@loc.gov

Ament, Douglas

From: Farraj-Feijoo, Ricardo
Sent: Monday, June 15, 2015 8:44 AM
To: Ament, Douglas
Cc: Curtiss, Dan
Subject: Urgent discussion

Liz just stopped at dunkin donuts and told us a very disturbing news. It is about the acf. Let us know when we can stop by.

Sent from my iPhone

Ament, Douglas

From: Ament, Douglas
Sent: Monday, June 15, 2015 12:19 PM
To: Farraj-Feijoo, Ricardo; Curtiss, Dan
Cc: Christopher, David
Subject: Security of ACF

Importance: High

Just got off the phone with Liz...

She further explained that the issue at the ACF is not that the facility is "un-secure", it's that they (ITS) do not have the proper monitoring in place. As she explained, it seems that once the primary facility (Madison) goes down, the monitoring of the ACF goes down. It seems that the current IT security monitoring capability of the PCF is somehow inclusive of the ACF and that when power shuts down at the ACF in August, they'll lose the capability of monitoring the ACF environment(s)...In other words, we're fine (from a monitoring perspective) as long as the PCF is up and running. In essence though, if the PCF goes down, shouldn't the ACF go down also?...at least we should be assured that there is no outside connectivity to the ACF if the PCF goes down. As we all know, if there isn't active monitoring going on, we have an unsecure system.

To be clear, based on what Liz indicated, the reason this came to light was because we pushed to have the failover to the ACF. If we hadn't pushed, other SUs wouldn't have pushed and this wouldn't have been discovered.

She would not put the above information in writing at this time but indicated she had notified her superior managers.

I asked if she would be notifying Maria about this situation or if she would like me to notify her...I explained that now that I have this information, I have a responsibility to notify Maria. She asked that she (Liz) be permitted to notify Maria given that, in her current operating capacity, she is a peer of Maria's. I told her that since there is no immediate threat, I would wait for her (Liz) to notify Maria of this situation.

She indicated that they (ITS) would be providing a written message indicating that they would not be able to support the eCO failover during the August power outage at the PCF.

She indicated they are taking immediate action to remedy the situation as quickly as possible.

Doug

Ament, Douglas

From: Scheffler, Elizabeth
Sent: Friday, June 19, 2015 12:00 PM
To: Ament, Douglas
Subject: August power shutdown and ACF support

Follow Up Flag: Follow up
Flag Status: Flagged

As we discussed, the security issues at the ACF could compromise eCO operations. Therefore I am recommending against USCO running eCO at the ACF.
thanks

Elizabeth R Scheffler
Interim Chief Information Officer
Library of Congress
101 Independence Ave SE
Washington DC 20560
202.707.6042

Ament, Douglas

From: Pallante, Maria
Sent: Sunday, September 06, 2015 10:17 AM
To: Scheffler, Elizabeth
Cc: Ament, Douglas; Curtiss, Dan; Farraj-Feijoo, Ricardo; Swann, Syreeta; Christopher, David; Charlesworth, Jacqueline
Subject: Re: One of many future Qs

Ironical since we just lost a million dollars in revenue

Sent from my iPhone

On Sep 6, 2015, at 9:52 AM, Scheffler, Elizabeth <esch@loc.gov> wrote:

That would be the ACF but as I think you know we held on the failover test when I learned ITS had never invested in ITSecurity at the ACF. This has been known for years by ITS and no one thought it was worth the 1million to ensure data integrity or system security. When I learned that in June, I redirected funds, the orders went in and were awarded last week. If the ACF was secure, Eco, Congress.gov, momentum and CRS .gov would have been at the ACF a week ago Friday. No downtime for anyone.

Yes the Librarian's office is aware. I notified them of the potential for a security breach in June. As soon as I knew they knew.

Sent from my iPhone

On Sep 6, 2015, at 8:39 AM, Pallante, Maria <mpall@loc.gov> wrote:

Regarding the AOC shutdown, one thing I want to review is whether there is an alternative to losing two days of business for this annual drill. Unlike the rest of the Library, we are a business. I would be surprised to learn that PTO completely shuts down during such testing exercises. Shouldn't the Library have provided for an offsite business base on a temporary basis?

QUESTION 9

SERVICE UNIT

POSITION DESCRIPTION (Please Read Instructions on the Back)				1. Agency Position No. 264902	
2. Reason for Submission <input type="checkbox"/> Reestablishment <input checked="" type="checkbox"/> New <input type="checkbox"/> Other		3. Service <input checked="" type="checkbox"/> Headquarters <input type="checkbox"/> Field		5. Duty Station Washington, DC	
4. Employing Office Location Washington, DC		7. Fair Labor Standards Act <input checked="" type="checkbox"/> Exempt <input type="checkbox"/> Nonexempt		8. Financial Statements Required <input type="checkbox"/> Executive Personnel <input type="checkbox"/> Financial Officers <input type="checkbox"/> Employment and Financial Interest	
10. Position Status <input checked="" type="checkbox"/> Excepted (Specify in Remarks) SES (Gen.) SES (CR)		11. Position Is <input type="checkbox"/> Supervisory <input checked="" type="checkbox"/> Managerial <input type="checkbox"/> Neither		12. Sensitivity <input type="checkbox"/> 1-Non-Sensitive <input type="checkbox"/> 3-Critical <input type="checkbox"/> 2-Noncritical <input checked="" type="checkbox"/> 4-Special Sensitive	
13. Competitive Level Code		14. Agency Use M		9. Subject to IA Action <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
15. Classified/Graded by		Official Title of Position		Pay Plan Occupational Code Grade Initials Date	
a. Office of Personnel Management					
b. Department, Agency or Establishment		Chief Information Officer, Copyright		SL 2210 00 DW 10/30/13	
c. Second Level Review					
d. First Level Review					
e. Recommended by Supervisor or Initiating Office					
16. Organizational Title of Position (if different from official title) Chief Information Officer, Copyright		17. Name of Employee (if vacant, specify)			
18. Department, Agency, or Establishment Library of Congress		c. Third Subdivision			
a. First Subdivision Copyright Office		d. Fourth Subdivision			
b. Second Subdivision Office of the Register of Copyrights		e. Fifth Subdivision			
19. Employee Review: This is an accurate description of the major duties and responsibilities of my position.		Signature of Employee (optional)			
20. Supervisory Certification: I certify that this is an accurate statement of the major duties and responsibilities of this position and its organizational relationships, and that the position is necessary to carry out Government functions for which I am responsible. This certification is made with the knowledge that		this information is to be used for statutory purposes relating to appointment and payment of public funds, and that false or misleading statements may constitute violations of such statutes or their implementing regulations.			
a. Typed Name and Title of Immediate Supervisor Maria A. Pallante, Register of Copyrights		b. Typed Name and Title of Higher-Level Supervisor or Manager (optional) JAMES H. BILLINGTON LIBRARIAN OF CONGRESS			
Signature Maria A. Pallante		Date 10/17/13		Signature James H. Billington	
				Date 12/20/13	
21. Classification/Job Grading Certification: I certify that this position has been classified/graded as required by Title 5, U.S. Code, in conformance with standards published by the U.S. Office of Personnel Management or, if no published standards apply directly, consistently with the most applicable published standards.		22. Position Classification Standards Used in Classifying/Grading Position JFS FOR ADMINISTRATIVE WORK IN THE INFORMATION TECHNOLOGY GROUP, 22 REVISED: MAY 2011			
Typed Name and Title of Official Taking Action DENNIS HANRATTY, DIRECTOR HUMAN RESOURCES SERVICES		Information for Employees: The standards and information on their application, are available in the personnel office. The classification of the position may be reviewed and corrected by the agency or the U.S. Office of Personnel Management. Information on classification/job grading appeals, and complaints on exemption from FLSA, is available from the personnel office or the U.S. Office of Personnel Management.			
Signature Dennis Hanratty		Date 10/30/13			
23. Position Review		Initials Date		Initials Date	
a. Employee (optional)					
b. Supervisor					
c. Classifier					
24. Remarks Excepted service: Legislative Branch Agency ESTABLISHED AS PART OF THE COPYRIGHT RE-ORG. 2013. (21)					
25. Description of Major Duties and Responsibilities (See Attached)					

CHIEF INFORMATION OFFICER, COPYRIGHT SL-2210

Position Number:

I. INTRODUCTION

This position serves as the Chief Information Officer (CIO) for the United States Copyright Office (USCO). The role of Chief Information Officer (CIO) aligns with the Clinger Cohen Act which establishes the role of the CIO and is widely accepted as the best practice for executive management of Information Technology (IT) environments. The position is primarily responsible for establishing the enterprise IT posture and policy, facilitating information accessibility and enforcing the IT policy of the Copyright Office. The CIO forms the technical direction on behalf of the Register of Copyrights and the Copyright organization. The USCO CIO participates in executive level decision making representing all IT aspects of the Copyright Office. The CIO maintains oversight for essential Project, Program, and Portfolio management activities to ensure crucial IT projects are facilitated appropriately so as to realize strategic and operational objectives. The CIO provides strategic leadership and direction for the USCO, IT in the planning, design, development, and implementation of information technologies to support the unique research and information needs of the business of the USCO. The CIO is responsible for USCO information technology strategic planning, administration, priority setting, information architecture and the acquisition and allocation of information technology resources. The CIO leads USCO in developing information technology policies and guidelines, and develops and designs innovative information technologies to improve operations, productivity, efficiency, effectiveness, and service delivery. The CIO will ensure USCO compliance with relevant Library-wide IT policy and related guidance provided by the Library of Congress. This position reports to the Register of Copyrights.

II. MAJOR DUTIES AND RESPONSIBILITIES

Strategic Leadership

30%

The CIO ensures technical capabilities are aligned with, and support, the Copyright Office Mission, Vision and Core Values through development of the IT Strategic Plan and establishing IT annual objectives which satisfy the technology needs of the organization. Provides strategic vision and leadership for the development and implementation of information and content management initiatives and acts as advocate to enlist broad support for this vision via written and in-person communications with USCO senior managers and end users. Defines USCO IT strategy to address business and systems requirements through proven information and content management processes and techniques and secures new technologies in consultation and partnership with key stakeholders, especially senior management staff and officials at multiple levels. Participates in strategic and operational governance processes of USCO as a member of the senior management team. Integrates IT planning into agency decision-making, strategic planning, and budget planning cycles. Leads IT strategic and operational planning to achieve business goals by fostering innovation, prioritizing IT initiatives, and coordinating the evaluation, deployment, and management of current and future IT systems across the

organization. When appropriate, coordinates IT plans with those of the Library's Office of Strategic Initiatives and Information Technology Service directorate.

The incumbent implements competent information and content management practices, including understanding business needs, project management principles, software development processes, System Development Life Cycle (SDLC) methodology, configuration management, infrastructure component reliability and capacity measures, portfolio management, etc. Defines measures of success for assessing the effective and efficient use of IT resources and progress in meeting long range strategic and annual performance plan targets.

The incumbent keeps current with trends and issues in the information management industry, including current technologies and prices. Advises, counsels, and educates senior management on the competitive or financial impact of these technologies. Promotes and oversees strategic relationships between internal IT resources and external entities, including government, vendors, and partner organizations.

Contributes to the effective and efficient design and operation of resources management processes related to information management for the organization.

Exercises Supervisory and/or Managerial Authorities **25%**

Exercises overall responsibility, as well as delegated authority, for the oversight and administration of Copyright Office-wide IT activities, maintaining a highly complex program within the Copyright Office. Evaluates current and proposed programs and recommends action to initiate, modify, or discontinue projects as appropriate. Receives administrative direction from the Register of Copyrights in terms of the broadly defined missions and functions of the Copyright Office.

The incumbent is responsible for furthering the spirit, practice and goals of equal employment opportunity (EEO) by taking positive steps to ensure the accomplishment of affirmative action objectives and by adhering to non discriminatory employment practices in regard to race, color, religion, sex, sexual orientation, national origin, age, or handicap. Specifically, incumbent initiates nondiscriminatory practices and affirmative action for the area under his/her direction in the following: (1) merit promotion of employees and recruitment and hiring of applicants; (2) fair treatment of all employees; (3) encouragement and recognition of employee achievements; (4) career development of employees; and (5) full utilization of their skills.

Leads, plans, directs, and evaluates the research and analytical activities of the Copyright Technology Office.

Manages Development of Information Technology Operations and Systems **20%**

The incumbent exercises overall responsibility, as well as delegated authority, for the oversight and administration of broad, emerging, and/or critical agency information and content management programs. Oversees the management of centralized and decentralized information and content management functions within USCO, ensuring effective operations and communications regarding IT initiatives. Ensures robust, reliable and redundant information technology environment which realizes optimal operational efficiencies while striving for

implementation of standards based IT platforms and data standards so as to eliminate redundancies and improve interface and interconnectivity. The incumbent is responsible for identifying business requirements and ensuring effective planning, design, development, implementation, management, maintenance, and security of the USCO IT processes, technical architecture and infrastructure, and information which minimally includes, PCs, networks, telecommunications, applications development, web services, and user support. Directs IT operations including budget planning and execution, workforce planning and management, policy administration and work processes to efficiently and effectively achieve specified goals and objectives. Plans for, acquires, manages, and ensures the effective integration of IT staff (both government and contract) and non-personnel resources.

The incumbent is responsible for developing, maintaining, and facilitating the implementation of a sound and flexible business requirements protocol and integrated information technology architecture. Serves as champion for technical improvements to enhance Copyright Office IT systems and capabilities. Maintains communication with internal and external community to insure technical relevance with improvements to the IT infrastructure and architecture. Assesses and makes recommendations on the improvement or re-engineering of the IT organization. Develops multi-year technical road maps for critical IT components jointly with appropriate business owners and leaders from both USCO and the Library of Congress. Upgrades and streamlines business requirements processes and the computing, networking, and desktop applications infrastructure. Enables collaboration across USCO, and with users, through a robust USCO technology infrastructure. Provides advanced programming and computing support for modeling and simulation, and statistical analysis. Provides support for web applications development to enable productive operations and dissemination of information.

Maintains knowledge of information technology trends and emerging technologies and determines organizational fit by maintaining technical relevance through a combination of IT trade attendance and training. Identifies opportunities for the appropriate and cost-effective investment of financial resources in IT systems and resources, including staffing, sourcing, purchasing, and in-house development. Evaluates, assesses, and communicates risks associated with IT investments. Develops, tracks, and controls the IT technology annual operating and capital budgets. Provides accountability for the expenditure of IT funding. Develops business case justifications and cost benefit analyses for IT spending and initiatives. Directs the acquisition and management of contracts supporting USCO IT services and institutes efficient IT budget and contract administration leveraging economies of scale for IT acquisition with the Library of Congress. Exercises fiduciary responsibilities over the Copyright IT budget and contracts and continually strives to ensure efficient government IT spending is achieved with an objective of the elimination of waste and duplication. Responsible for planning and investment control related to Copyright Office IT resources. Determines long-range financial plans and strategies.

IT Policy Development, and Regulatory and Security Oversight **15%**
Responsible for the formulation and administration of policies affecting technology that supports information management in USCO, ensuring consistency with those of the Library of Congress where appropriate. The incumbent plans, and implements policies and guidelines affecting broad, emerging, and/or critical agency programs relating to information management. Sets USCO-wide

policies, procedures, standards, and guidelines for the management and security of information and content management technology in USCO, including policies and standards for functions that operate on a decentralized basis within USCO. Directs and ensures the development, documentation, and implementation of all USCO policies, standards, and procedures related to the design, development, implementation, management, and security of information management and content management technology in USCO. Assesses policy needs and develops policies to govern IT activities.

Ensures that USCO's technical infrastructure is appropriately integrated, where necessary, with the infrastructures of the service units within the Library of Congress. Assures that USCO systems meet all requirements in compliance with federal law, regulations, IT technology standards, and best practices. Directs the implementation of information security programs designed to anticipate, assess and minimize system vulnerabilities, and ensures that USCO information security programs are integrated with the information security programs of the Library of Congress. Ensures that information security programs adhere to applicable legislation, regulations, and guidelines. Establishes and enforces technical and security policy for all Copyright Office IT systems and identify, collect, and manage information to support corporate information policy for access and modification. Perpetuates continuous improvement of the security of Copyright information systems ensuring compliance with industry and government best practices for securing IT systems.

Directs development and execution of an enterprise-wide disaster recovery and business continuity plan.

Initiates and oversees projects to evaluate the utility of new and emerging technologies that could enable the Copyright Office to achieve its strategic goals more effectively. Initiates and advocates Copyright Office-wide IT enhancements and changes initiatives.

Serves as USCO Representative/Liaison

10%

The incumbent serves as the principal USCO representative to the Library of Congress, and other legislative, judicial and executive branch agencies on the broadest USCO matters related to the use of information technology within the Copyright Office. Ensures that the integration of IT technology efforts provide optimum customer service and security safeguards. Establishes and maintains effective working relationships with various high-level individuals, including members of Congress and their staff and senior managers and staff of other legislative, judicial and executive agencies. Encourages and participates in industry outreach to provide better services to customers and insures technical relevance of existing and future Copyright Office IT systems within intellectual property community

QUESTION 12

Ament, Douglas

From: Caldwell, Karen
Sent: Tuesday, June 23, 2015 12:31 PM
To: Scheffler, Elizabeth; Ament, Douglas; Banks, Al; Duda, Jim; Short, Stephen; Hoppis, Lisa; Klutts, Mary; Simon, Donald; Elky, Steve; Laurente, Kristin; Wofford, Denise
Cc: Daye, Stacian C.; Elmore, Nigel; Conklin, Judith; Lloyd, Karen; Mandelbaum, Jane; Jablonski, Edward
Subject: Message on SLA Implementation

Follow Up Flag: Follow up
Flag Status: Flagged

Dear ITSC members (sent on behalf of Nigel Elmore):

In order to comply with the findings in the *GAO-15-315 Report*, the OCIO Service Level Agreement (SLA) Project Team is planning to meet with Service Units individually to review the proposed SLA document as a first step toward satisfying GAO's recommendation. The SLA document will be distributed to the ITSC members following Interim CIO Liz Scheffler's review and approval, currently scheduled to occur on or about June 30th.

The *SLA Project Plan* calls for OCIO Senior Management and the SLA Project Manager to meet separately with each Service Unit's representatives to review the proposed SLA document as a first-step toward implementing the use of IT SLAs in the Library. Our goal is to meet and finalize the SLA document with all Service Units by September 7th, 2015.

We ask that you identify the person(s) who will serve as your respective Service Unit SLA representative or point-of-contact, one primary and an alternate (the alternate will participate when the primary is not available). Please send their names to Staci Daye (SLA Project Manager) by close of business, June 25th, 2015. You may contact Staci via email at sdaye@loc.gov or by telephone at X7-9788. Please cc: Nigel Elmore (ITIMPO) nelm@loc.gov on your response.

Please contact Al Banks at alba@loc.gov or X7-9562 or Staci Daye if you have any questions.

Sincerely,

Karen F. Caldwell
 (202) 707-3797

Ament, Douglas

From: Ament, Douglas
Sent: Tuesday, June 30, 2015 11:32 AM
To: Daye, Stacian C.
Cc: Farraj-Feijoo, Ricardo
Subject: RE: Message on SLA Implementation

Sorry Stacey for providing incomplete information.

Please list KanKan Yu as the alternate.

Doug

From: Farraj-Feijoo, Ricardo
Sent: Monday, June 29, 2015 6:54 PM
To: Ament, Douglas
Cc: Farraj-Feijoo, Ricardo
Subject: Re: Message on SLA Implementation

KanKan should be the secondary on this one.

Sent from my iPad

On Jun 29, 2015, at 4:18 PM, Ament, Douglas <dament@loc.gov> wrote:

Who do you want to be the alternate?

From: Daye, Stacian C.
Sent: Monday, June 29, 2015 4:14 PM
To: Ament, Douglas
Cc: Elmore, Nigel; Banks, Al
Subject: RE: Message on SLA Implementation

Hi Doug,

Thanks for your response, I have Ricardo as the primary POC, can you please provide me with the name for the alternate POC?

*Thanks,
 Staci*

<image001.png>
 Stacian C. Daye
 Office of Strategic Initiatives/
 Information Technology Services
 Email: sdaye@loc.gov
 Phone: 202-707-9788

From: Ament, Douglas
Sent: Wednesday, June 24, 2015 5:21 PM
To: Daye, Stacian C.
Cc: Elmore, Nigel
Subject: FW: Message on SLA Implementation

Please make Ricardo Farraj-Feijoo the POC for this initiative.

Thanks,

Doug Ament

Douglas Ament
Chief Information Officer, US Copyright Office
101 Independence Ave, SE, LM-403
Washington, DC 20540

From: Caldwell, Karen
Sent: Tuesday, June 23, 2015 12:31 PM
To: Scheffler, Elizabeth; Ament, Douglas; Banks, Al; Duda, Jim; Short, Stephen; Hoppis, Lisa; Klutts, Mary; Simon, Donald; Elky, Steve; Laurente, Kristin; Wofford, Denise
Cc: Daye, Stacian C.; Elmore, Nigel; Conklin, Judith; Lloyd, Karen; Mandelbaum, Jane; Jablonski, Edward
Subject: Message on SLA Implementation

Dear ITSC members (sent on behalf of Nigel Elmore):

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Please contact Al Banks at alba@loc.gov or X7-9562 or Staci Daye if you have any questions.

205

Sincerely,

Karen F. Caldwell
(202) 707-3797

Yu, KanKan

From: Daye, Stacian C.
Sent: Monday, July 13, 2015 4:01 PM
To: Farraj-Feijoo, Ricardo
Cc: Yu, KanKan; Conklin, Judith; Banks, Al; Bucknor, Vanley
Subject: RE: HOLD - U.S. Copyright Office (COP) SLA Review Meeting

Yes, the meeting invitation will be updated tomorrow to include the reference material needed to prepare for Thursday's discussion.

*Thanks,
 Staci*



**LIBRARY OF
 CONGRESS**
*Stacian C. Daye
 Office of Strategic Initiatives/
 Information Technology Services
 Email: sdaye@loc.gov
 Phone: 202-707-9788*

From: Farraj-Feijoo, Ricardo
Sent: Monday, July 13, 2015 3:56 PM
To: Daye, Stacian C.
Cc: Yu, KanKan; Conklin, Judith; Banks, Al; Bucknor, Vanley
Subject: RE: HOLD - U.S. Copyright Office (COP) SLA Review Meeting

Forgot to ask. Is there any reference material we (Copyright) should review before the meeting?

Thanks!

From: Daye, Stacian C.
Sent: Monday, July 13, 2015 3:44 PM
To: Farraj-Feijoo, Ricardo
Cc: Yu, KanKan; Conklin, Judith; Banks, Al; Bucknor, Vanley
Subject: RE: HOLD - U.S. Copyright Office (COP) SLA Review Meeting

I will submit a ticket to request one. How many participants are you expecting to call in?

*Thanks,
 Staci*

<< OLE Object: Picture (Device Independent Bitmap) >>
*Stacian C. Daye
 Office of Strategic Initiatives/
 Information Technology Services*

*Email: sdaye@loc.gov
Phone: 202-707-9788*

From: Farraj-Feijoo, Ricardo
Sent: Monday, July 13, 2015 3:40 PM
To: Daye, Stacian C.; Yu, KanKan; Conklin, Judith; Banks, Al; Bucknor, Vanley
Subject: RE: HOLD - U.S. Copyright Office (COP) SLA Review Meeting

Would a conference bridge be provided? Thanks!

-----Original Appointment-----

From: Daye, Stacian C.
Sent: Thursday, July 09, 2015 7:42 PM
To: Daye, Stacian C.; Farraj-Feijoo, Ricardo; Yu, KanKan; Conklin, Judith; Banks, Al; Bucknor, Vanley
Subject: HOLD - U.S. Copyright Office (COP) SLA Review Meeting
When: Thursday, July 16, 2015 11:30 AM-12:30 PM (UTC-05:00) Eastern Time (US & Canada).
Where: Automation Orientation Center LM-G45

*Update: Please note the time change to accommodate changes to a key participant's schedule.

Ament, Douglas

From: Daye, Stacian C.
Sent: Thursday, July 16, 2015 10:07 AM
To: Farraj-Feijoo, Ricardo
Cc: Yu, KanKan; Conklin, Judith; Banks, Al; Bucknor, Vanley; Wilson, Tina; Hoppis, Billy; Balakrishnan, Bhaskaran; Nelson, Carrie A.; Ament, Douglas
Subject: RE: U.S. Copyright Office (COP) SLA Review Meeting

Good morning,

I will reschedule the meeting for next week. Wishing you a speedy recovery!

Thanks,
 Staci

Stacian C. Daye
 Office of Strategic Initiatives/
 Information Technology Services
 Email: sdaye@loc.gov
 Phone: 202-707-9788

-----Original Message-----

From: Farraj-Feijoo, Ricardo
 Sent: Thursday, July 16, 2015 8:51 AM
 To: Daye, Stacian C.
 Cc: Farraj-Feijoo, Ricardo; Yu, KanKan; Conklin, Judith; Banks, Al; Bucknor, Vanley; Wilson, Tina; Hoppis, Billy; Balakrishnan, Bhaskaran; Nelson, Carrie A.; Ament, Douglas
 Subject: Re: U.S. Copyright Office (COP) SLA Review Meeting

I am requesting for this meeting to be reschedule till next week. I had surgery yesterday and I won't be able to be physically there. Sorry for the late notice. I rather be in person to ensure Copyright comments regarding this document are well understood.

Can someone please acknowledge my request. Thanks

Sent from my iPad

> On Jul 15, 2015, at 5:37 PM, Daye, Stacian C. <sdaye@loc.gov> wrote:
 >
 > Update: Due to space limitation the meeting location has been changed to Al's office.
 >
 > -----
 > All,
 >

> In order to comply with the findings in the GAO-15-315 report, we are working on preparing a Draft Service Level Agreement (SLA) document (Please see attached). It is indeed a draft, and over the next few weeks we will use your comments for the purpose of revising and polishing the draft, as well as, gathering requirements for inclusion in future phases.

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> During this meeting, please share with us your requirements and your suggestions for improving the SLA document. As you do so, please bear in mind that the Draft SLA document is focusing more on Commodity IT Services during this phase while touching on Service Level Agreements.

 \vee

> Please call the number listed below if you are joining this meeting remotely.

> Dial-in: 202-707-1877

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> Please do not hesitate to reach out to me with questions and/or comments.

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> Thank you and I look forward to meeting with you.

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> Thanks,

> Staci

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> Stacian C. Daye

> Office of Strategic Initiatives/

> Information Technology Services

> Email: sdaye@loc.gov<mailto:sdaye@loc.gov>

> Phone: 202-707-9788

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> <DRAFT_COP_Service_Level_Agreement_071615v1.doc>

> <ATT37588>

> <meeting.ics>

Curtiss, Dan

Subject: FW: U.S. Copyright Office (COP) SLA Review Meeting
Location: LM637- Edison Conference Room Conference Bridge: 202-707-1877

Start: Mon 7/20/2015 3:00 PM
End: Mon 7/20/2015 4:00 PM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Daye, Stacian C.

-----Original Appointment-----

From: Daye, Stacian C.
Sent: Thursday, July 09, 2015 7:42 PM
To: Daye, Stacian C.; Farraj-Feijoo, Ricardo; Yu, KanKan; Scheffler, Elizabeth; Conklin, Judith; Banks, Al; Bucknor, Vanley; Hoppis, Billy; Balakrishnan, Bhaskaran; Wilson, Tina
Cc: Nelson, Carrie A.
Subject: U.S. Copyright Office (COP) SLA Review Meeting
When: Monday, July 20, 2015 3:00 PM-4:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: LM637- Edison Conference Room Conference Bridge: 202-707-1877

Update: Please note the following changes: date, time and location.

 All,

In order to comply with the findings in the GAO-15-315 report, we are working on preparing a Draft Service Level Agreement (SLA) document (Please see attached). It is indeed a draft, and over the next few weeks we will use your comments for the purpose of revising and polishing the draft, as well as, gathering requirements for inclusion in future phases.

During this meeting, please share with us your requirements and your suggestions for improving the SLA document. As you do so, please bear in mind that the Draft SLA document is focusing more on Commodity IT Services during this phase while touching on Service Level Agreements.

Please call the number listed below if you are joining this meeting remotely.

Dial-in: 202-707-1877

Please do not hesitate to reach out to me with questions and/or comments.



DRAFT_COP
 _Service_Level_A...

Thank you and I look forward to meeting with you.

*Thanks,
Staci*



*Stacyan C. Daye
Office of Strategic Initiatives/
Information Technology Services
Email: sdaye@loc.gov
Phone: 202-707-9788*

Service Level Agreement (SLA)

BETWEEN

THE UNITED STATES COPYRIGHT OFFICE (COP)

AND

THE CHIEF INFORMATION OFFICER (CIO)

DRAFT

JULY 16, 2015

DOCUMENT INFORMATION AND APPROVALS

VERSION HISTORY			
Version #	Date	Revised By	Reason for change
0.1	6/24/15	CIO	Initial draft
0.2	6/30/15	CIO	Revisions suggested by Interim CIO
0.3	7/9/15	CIO	Revisions suggested by Deputy CIO & SUs
0.4	7/14/15	CIO	Revisions suggested by Interim CIO, Deputy CIO, and SUs.

DOCUMENT APPROVALS			
Approver Name	Project Role	Signature/Electronic Approval	Date

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1.0 INTRODUCTION

1.1 Overview of CIO

The Chief Information Officer (CIO) ensures the effective delivery of information technology resources and services in support of the Library's mission, functions, and activities. The mission of CIO is to provide reliable and effective information systems and telecommunications services to the Library in support of its efforts to serve Congress and the nation, manage its collections, and plan, design, and implement systems which define the future digital library and information infrastructure.

1.2 SCOPE OF AGREEMENT

This is a Service Level Agreement (SLA) between CIO and the Library of Congress (LOC) United States Copyright Office (COP). The purpose of this SLA is to establish baseline support levels for commodity IT services that are provided by CIO to COP.

This SLA is binding upon CIO and COP. The CIO and COP may change this agreement when service issues arise, new technologies develop, or requirements change. All modifications must be agreed upon by both the CIO and COP. CIO and COP agree to engage in good-faith efforts to resolve any problems which may arise.

As needed and appropriate Memoranda of Agreement (MOUs) will establish support levels for specialized CIO support not covered in this agreement.

1.3 ASSUMPTIONS

This agreement relies on certain operational assumptions. Should any of these assumptions change, then the CIO and COP will negotiate and agree upon any necessary adjustments to this agreement.

- ◆ Support levels established by this agreement will be provided.
- ◆ All IT-related mandates, such as regulatory or Congressional, have been accounted for in this SLA.

1.4 OUTSIDE CIO'S CONTROL

The services provided under this SLA may be temporarily suspended in part or in full by the CIO or other LOC or U.S. Government officials in the instance of unplanned, widespread, service-affecting issues. The services will be considered to be in "reduced service mode" in the instance of service-affecting issues which render the entire LOC enterprise unusable or severely degraded, these may include:

- ◆ Certain Department of Homeland Security (DHS) alerts;
- ◆ Severe weather or other natural occurrences like earthquakes, asteroid strikes, etc. which affects wide-area communication links, or utility services or prevents technicians from reaching their workplaces;
- ◆ A Government shutdown, declared by the Office of Personnel Management;
- ◆ Certain security threats and attacks; and,

- ♦ Scheduled life & safety testing;

Restoration of services covered under this SLA may be subject to factors outside of CIO's control. These may include vendor lead time (for purchases or vendor-provided repairs) and service provider lead time.

2.0 IT SERVICES

The services listed here are standard, meaning that these services are provided at no additional cost to COP. Should resource requirements or the availability of resources change significantly, then the CIO and COP will make necessary modifications to this agreement.

As noted by the Federal Information Technology Shared Services Strategy¹, and the Federal IT Shared Services Implementation Guide², there are three general categories of shared services in the Federal Government: commodity IT, support, and mission services, as described below:

1. **Commodity IT** – As described in OMB Memorandum M-11-29,³ examples of commodity IT shared services opportunities include:
 - IT infrastructure (e.g., data centers, networks, workstations, laptops, software applications, and mobile devices); and
 - Enterprise IT services (e.g., e-Mail, web infrastructure, collaboration tools, security, identity and access management). Commodity IT is asset-oriented, while enterprise IT services may, at times, be more utility-oriented (defined as purchasing by usage rate).
2. **Support Services** – Are defined by the capabilities that support common business functions performed by nearly all Federal organizations. These include functional areas such as budgeting, financial, human resources, asset, and property and acquisition management.
3. **Mission Services** – These are core purpose and functional capabilities of the Federal Government; such as disaster response, food safety, and national defense and employment services. Some Mission Services may have a single Federal organization focused on providing that service, while other mission services have multiple Federal organizations providing parts of a service. This may be due to statute, budget or other unique capabilities an agency may have developed.

The scope of this SLA will cover Commodity IT Services.

¹ Federal Information Technology Shared Services Strategy, Office of Management and Budget (OMB), Office of E-Government and Information Technology, May 2, 2012
http://www.whitehouse.gov/sites/default/files/omb/assets/eGov_docs/shared_services_strategy.pdf

² Federal Information Technology Shared Services Implementation Guide, CIO Council, April 13, 2013
<https://cio.gov/wp-content/uploads/downloads/2013/04/CIOC-Federal-Shared-Services-Implementation-Guide.pdf>

³ Office of Management and Budget (OMB), M-11-29, Chief Information Officer Authorities, August 8, 2011

2.1 COMMODITY IT SERVICES

The following tables contain the services within the scope of this SLA.

	Service Name	Service Description	Availability	Business Level Catalogue (SLA)
1.	Access Management	The process responsible for allowing users to make use of IT services, data or other assets. Access management helps to protect the confidentiality, integrity and availability of assets by ensuring that only authorized users are able to access or modify them.	Normal Business Hours	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
2.	Audio & Video Teleconferencing (VTC)	Audio & Video Teleconferencing services provides technology and support to aid in the presentation and communication of relevant content and information to Library staff, and special events during normal business hours.	Normal Business Hours	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
3.	Database Administration	Supports Library databases / database applications by developing architecture, establishing standards, monitoring, managing, and addressing security related issues to databases.	Normal Business Hours	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
4.	Email	Enterprise email supporting internal, employee to employee(s), or external, employee to customer, vendors, or business partners.	99%	♦ As defined by Project Schedule ♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
5.	Desktop Computing	This service provides support services for workstations and connected peripherals. Including print services which enable all computers connected to the LOC network, including staff laptops connected wirelessly, to print to large multi-function devices and small	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix) ♦ As defined by Project Schedule

SERVICE LEVEL AGREEMENT				
CIO	Service Name	Service Description	Availability	Service Level Target (SLT)
6.	Hosting Services	<p>desktop printers.</p> <p>This service provides support services internal to LOC environment comprising of the following:</p> <ul style="list-style-type: none"> ♦ Application ♦ Database ♦ Server ♦ Storage ♦ Infrastructure (e.g. CAPNET, DNS, VPN) 	99%	<ul style="list-style-type: none"> ♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix) ♦ As defined by Project Schedule
7.	Information Security Management	This service provides the protection of the Library information and information structure assets against the risk of loss, misuse, disclosure or damage. Develops, implements, and manages the controls that ensure that the Library is managing these risks.	99%	♦ As defined by Project Schedule
8.	Internet (ISP)	Services provide fast and secure network connectivity to the Internet.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
9.	Messaging & Collaboration	This service provides tools and capabilities that allow users to communicate and collaborate. This includes systems such as (e.g., SharePoint, Instant Messaging and GroupWise).	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
10.	Mobile Device	This service provides the mobile devices and capabilities that allow users to access Library technology resources when not at their duty stations.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)

SERVICE LEVEL AGREEMENT				
CIO	Service/SLA Name	Service Description	Availability	Service Level Target (SLT)
11.	Telecommunications	<p>This service provides solutions that support the LOC telecommunications needs. This includes the following:</p> <ul style="list-style-type: none"> ♦ Voice: Support for telephony tools, hardware, software, and voice data infrastructure ♦ Data: Support for tools, hardware, and infrastructure that supports data transmission. ♦ Facilities: Oversight support for the Library, data centers, to include power, location, and cabling. 	99%	<p>As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)</p> <ul style="list-style-type: none"> ♦ As defined by Project Schedule
12.	Telework/COOP	<p>This service provides support for an employee to perform work, during any part of regular, paid hours, at an approved alternate worksite (e.g. home or telework center).</p>	99%	<p>As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)</p> <ul style="list-style-type: none"> ♦ As defined by Project Schedule
13.	Wireless	<p>Services provide secure network connectivity to the LOC wireless network for staff and the general public.</p> <ul style="list-style-type: none"> ♦ In Building Wireless: (TBD) ♦ LOC Wi-Fi LOC Guest: (TBD) 	99%	<p>As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)</p> <ul style="list-style-type: none"> ♦ As defined by Project Schedule
14.	Service Desk (ITS Help Desk) <i>*Note: See Appendix B for full listing of Service Desk Catalogue items.</i>	<p>The Service Desk is designed to be the single point of contact for users to request additional services or report issues with existing services to IT.</p> <p>(*Note: - To the extent, if a COP user contacts the Service Desk they will be supported).</p>	<p>99%</p> <p>The Service Desk is closed on the two holidays, July 4th and December 25th.</p>	<p>As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)</p> <ul style="list-style-type: none"> ♦ As defined by Project Schedule

Priority Matrix

Urgency	Impact						
	Enterprise	Congress	Public	Service Unit	Division/Office	VIP	Individual
	Work Stoppage	P1	P1	P1	P2	P2	P3
	Work Degradation	P1	P1	P2	P2	P2	P3
	Service Request	P3	P3	P3	P3	P2	P3
	Processes	P3	P3	P4	P4	P4	P4
	Project Support Tasks	P5	P4	P5	P5	P5	P5
	Extended Tasks	P6	P6	P6	P6	P6	P6

Priority	Significance	Response Time	Resolution Time
P1	Critical	15 Minutes	4 Hours
P2	High	30 Minutes	1 Day
P3	Standard	4 Hour	5 Days
P4	Low	1 Day	10 Days
P5	Routine Process	1 Day	30 Days
P6	Extended Task	1 Day	6 Months

Priority Matrix

Priority Matrix – The Priority Matrix establishes categories of urgency and acceptable response times for a given incident or Service Request.

Incident – An unplanned interruption to an IT service.

Priority – The measure of response expected from a Fulfillment Group or incident management team. Allowed response times are measured in minutes, hours and days.

- ♦ **P1** – During a P1 incident the CIO will, within 15 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and delivered to the Public Affairs Office for distribution. Within 4 working hours the CIO will resolve the incident.
- ♦ **P2** – During a P2 incident the CIO will, within 30 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and delivered to the Public Affairs Office for distribution. Within 8 working hours the CIO will resolve the incident.
 - VIP Service Requests will be assigned a P2 priority. Where a VIP request is added to a Fulfillment Group queue the request will be treated as first in queue and fulfilled with the least delay.
- ♦ **P3** – Routine requests will be assigned this priority level except for VIP requests. P3 requests will be placed in queue and fulfilled in turn (FIFO) by a Fulfillment Group(s). The Fulfillment Group(s) will respond to the request within 4 working hours and resolve the request within 5 days.
 - Use this priority where an incident has occurred which does not have an immediate operational impact or where a workaround is available to the user.
- ♦ **P4** – A low priority request that does not immediately impact the ability for a person or team to complete their assigned tasks. P4 requests will be acknowledged within one day and will be resolved within 10 business days.
- ♦ **P5** – Assign requests received from Project Teams to this category. The Project Team will establish the maximum time for fulfillment with the Fulfillment Group(s). The Fulfillment Group(s) will have 8 working hours to review the request and respond to the Project Team and 30 days to resolve the request. All requests will be fulfilled by the requested or agreed upon date.
- ♦ **P6** – Non-routine tasks which have extended completion times will be assigned this priority.

Significance – A term used to identify the different priority levels as a measure of importance to the organization.

Response Time – How long a Fulfillment Group or incident management team has to review a ticket and begin a response.

Resolution Time – The measure of time an incident or Service Request can remain in a non-resolved status before an SLA Breach occurs.

Impact – Is a measure of the extent of perceived effect to systems or users and the potential damage to the organization before the incident or ticket is resolved.

- ♦ Enterprise – Where an incident or task affects a majority of Library users.
- ♦ Congress – Where an incident or task affects any congressional web site hosted on or in development by a LC system or team.
- ♦ Public – Where the system or service is commonly available to the general public.
- ♦ Service Unit – Where an affected system or service supports all or the greater part of a Service Unit.
- ♦ Division/Office – Where an affected system or service supports a building/floor/partial floor/division/office.
- ♦ VIP – Where the requestor or the requestor's assistant appears on the approved VIP list.
- ♦ Individual – Where the requestor is a single user.

Urgency – Is a means for categorizing how quickly an incident or ticket needs to be resolved.

- ♦ **Work Stoppage** – An interruption of IT services or access to one or more systems which results in one or more users not being able to perform routine assigned tasks which they are normally able to perform.
- ♦ **Work Degradation** – Where an IT system continues to be useable but performs below normal operating levels. A system may be slow to respond to user requests or part of a system may fail entirely with other parts continuing to function.
- ♦ **Service Request** – A request for a routine service has been submitted and will be routed to a Fulfillment Group for action. There are no users or systems experiencing an incident.
- ♦ **Processes** – For routine Service Requests which require multiple steps or an extended period to fulfill which do not directly affect a specific user. An example would include a change request for software to be approved which requires an extended amount of time to fulfill due to the number of steps and groups involved.
- ♦ **Project Support Tasks** – For Service Requests originating from a Project Team. To be used where a Project Team requires support from a Fulfillment Group outside the Project Team.
- ♦ **Extended Task** – For long term tasks that are not Projects and are not routine tasks which may require 1 to 6 months to complete.

3.0 SYSTEMS MAINTENANCE & POLICY

The following events may impact on service availability:

- **Planned maintenance windows** – CIO is required to update and maintain the technical infrastructure on a regular basis per Maintenance Policy dated July 1, 2013.

The agreed change windows for this work are:

- ◆ Maintenance activity that is expected to take less than 4 hours will take place on the first and third Tuesday of each month beginning at 9:00pm Tuesday and ending by 3:00am on Wednesday;
- ◆ Maintenance activity that is expected to take less than 12 hours to complete will take place on the second and fourth Sunday of each month beginning at 6:00am and ending by 6:00pm the same day;
- ◆ Maintenance activities will be suspended for certain periods during which maintenance may disrupt special events that require uninterrupted service, e.g., when Congressional activities are in progress, the National Book Festival. The CIO and the SU will identify these events and coordinate maintenance accordingly; and
- ◆ **Emergency system maintenance** – From time to time critical maintenance, such as urgent security patches may need to be performed within business hours which may impact on service availability. Staff will be notified and all attempts will be made to minimize the business impact of the changes.

Maintenance windows are not included in the availability column of the SLA.

4.0 ROLES AND RESPONSIBILITIES

4.1 CIO RESPONSIBILITIES

CIO has the following general responsibilities under this agreement.

- ◆ Conduct business in a courteous and professional manner with clients;
- ◆ Meet response times associated with the priority assigned to client issues;
- ◆ Ensure staff are appropriately trained and currency of training is maintained;
- ◆ Maintain adequate escalation procedures with the Priority Matrix table;
- ◆ Log an track all client requests for service through the Service Desk System

4.2 U.S. COPYRIGHT OFFICE RESPONSIBILITIES

COP agrees to:

- ◆ Be familiar with the CIO policies and procedures for governing the acceptable use of information and communication technologies and adhere to same;
- ◆ Follow appropriate notification procedures
- ◆ Determine appropriate support issue priority(P1-P6) in corporation with the Service Desk;
- ◆ Be willing and available to provide critical information within [X Timeframe] of logging a request with the Service Desk for any urgent matters.

5.0 PERIODIC REVIEW PROCESS

This SLA is a dynamic document and will be periodically reviewed and changed when the following events occur:

- ◆ The environment has changed.
- ◆ Business requirements have changed. Workloads have changed.
- ◆ Better metrics, measurement tools and processes have evolved.

This Service Level Agreement will be reviewed semi-annually in fiscal 2016 and annually for commodity level. Contents of this document may be amended as required, provided mutual agreement is obtained and communicated to all affected parties. The Document Owner will incorporate all subsequent revisions and obtain mutual agreements / approvals as required.

Document Owner:

Review Period:

Previous Review Date:

Next Review Date:

5.0 SIGNATURES

Title & Name <i>Service Provider and Document Owner</i>	Date
Title & Name <i>Customer</i>	Date
Title & Name	Date
Title & Name	Date

APPENDIX A: DEFINITIONS, ABBREVIATIONS, AND ACRONYMS

Term	Definition
Access Management	The process responsible for allowing users to make use of IT services, data or other assets. Access management helps to protect the confidentiality, integrity and availability of assets by ensuring that only authorized users are able to access or modify them.
Asset	Any resource or capability. The assets of a service provider include anything that could contribute to the delivery of a service. Assets can be one of the following types: management, organization, process, knowledge, people, information, applications, infrastructure or financial capital.
Audio & Video Teleconferencing (VTC)	Audio & Video Teleconferencing Conferencing services provides technology and support to aid in the presentation and communication of relevant content and information to Library staff, and special events during normal business hours.
Availability	Availability of an IT service is determined by reliability, maintainability, serviceability, performance and security. Availability is usually calculated as a percentage. This calculation is often based on agreed service time and downtime.
Commodity IT	Core services which include: IT infrastructure (e.g., data centers, networks, workstations, laptops, software applications, and mobile devices); and Enterprise IT services (e.g., e-Mail, web infrastructure, collaboration tools, security, identity and access management). Commodity IT is asset-oriented, while enterprise IT services may, at times, be more utility-oriented (defined as purchasing by usage rate).
Congress	Where an incident or task affects any congressional web site hosted on or in development by a LC system or team.
Database Administration	Supports Library databases/database applications by developing architecture, establishing standards, monitoring, managing, and addressing security related issues to databases.
Desktop Computing	This service provides support services for workstations and connected peripherals. Including print services which enable all computers connected to the LOC network, including staff laptops connected wirelessly, to print to large multi-function devices and small desktop printers.
Devices	Mobile Devices - Need Definition
DHS	Department of Homeland Security
Division/Office	Where an affected system or service supports a building/floor/partial floor/division/office.
Email	Enterprise email supporting internal, employee to employee(s), or external, employee to customer, vendors, or business partners.
Enterprise	Where an incident or task affects a majority of Library users.
Extended Tasks	Consists of long term tasks that are not Projects and are not routing tasks which may require 1 to 6 months to complete.

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Term	Definition
Hosting Services	This service provides support services internal to LOC environment comprising of the following: <ul style="list-style-type: none"> • Application • Database • Server • Storage • Infrastructure
Impact	Impact is a measure of the extent of perceived effect to systems or users and the potential damage to the organization before the incident or ticket is resolved.
Individual	Where the requestor is a single user.
Information Security Management	This service provides the protection of the Library information and information structure assets against the risk of loss, misuse, disclosure or damage. Develops, implements, and manages the controls that ensure that the Library is managing these risks.
Internet (ISP)	Services provide fast and secure network connectivity to the Internet.
LOC	Library of Congress
Messaging & Collaboration	This service provides tools and capabilities that allow users to communicate and collaborate. This includes systems such as (e.g., SharePoint, Instant Messaging and GroupWise).
Mission Services	Mission Services are core purpose and functional capabilities of the Federal Government; such as disaster response, food safety, and national defense and employment services. Some Mission Services may have a single Federal organization focused on providing that service, while other mission services have multiple Federal organizations providing parts of a service. This may be due to statute, budget or other unique capabilities an agency may have developed.
Mobile Device	This service provides the mobile devices and capabilities that allow users to access Library technology resources when not at their duty stations.
MOU	Memorandum of Understanding - A MOU is a formal agreement between the CIO and a SU. MOUs shall be used by the CIO as follow-on documents to the baseline SLA for the purpose of defining new or expanded services which are either not defined within the baseline SLA or which need to be redefined.
Normal Business Hours	The time period when a particular IT service is available. Services will be provided between the hours of 7:00 a.m. and 5:00 p.m., Monday through Friday. (*Note: See Service Desk)
CIO	Chief Information Officer - CIO ensures the effective delivery of information technology resources and services in support of the Library's mission, functions, and activities.
Priority	The measure of response expected from a Fulfilment Group or incident management team. Allowed response times are measured in minutes, hours and days.
P1	Priority 1- During a P1 incident the CIO will, within 15 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and

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Term	Definition
	delivered to the Public Affairs Office for distribution. Within 4 working hours the CIO will resolve the incident.
P2	During a P2 incident the CIO will, within 30 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and delivered to the Public Affairs Office for distribution. Within 8 working hours the CIO will resolve the incident. VIP Service Requests will be assigned a P2 priority. Where a VIP request is added to a Fulfillment Group queue the request will be treated as first in queue and fulfilled with the least delay.
P3	Routine requests will be assigned this priority level except for VIP requests. P3 requests will be placed in queue and fulfilled in turn (FIFO) by a Fulfillment Group(s). The Fulfillment Group(s) will respond to the request within 4 working hours and resolve the request within 5 days. Use this priority where an incident has occurred which does not have an immediate operational impact or where a workaround is available to the user.
P4	A low priority request that does not immediately impact the ability for a person or team to complete their assigned tasks. P4 requests will be acknowledged within one day and will be resolved within 10 business days.
P5	Assign requests received from Project Teams to this category. The Project Team will establish the maximum time for fulfillment with the Fulfillment Group(s). The Fulfillment Group(s) will have 8 working hours to review the request and respond to the Project Team and 30 days to resolve the request. All requests will be fulfilled by the requested or agreed upon date.
P6	Non-routine tasks which have extended completion times will be assigned this priority.
Priority Matrix	The Priority Matrix establishes categories of urgency and acceptable response times for a given incident or Service Request.
Processes	Routine Service Requests which require multiple steps or an extended period to fulfill which do not directly affect a specific user. An example would include a change request for software to be approved which requires an extended amount of time to fulfill due to the number of steps and groups involved.
Project Support Tasks	Service Requests originating from a Project Team. To be used where a Project Team requires support from a Fulfillment Group outside the Project Team.
Public	Where the system or service is commonly available to the general public.
Resolution Time	The measure of time an incident or Service Request can remain in a non-resolved status before an SLA Breach occurs.
Response Time	How long a Fulfillment Group or incident management team has to review a ticket and begin a response.
Service	A means of delivering value to customers by facilitating outcomes

Term	Definition
	customers want to achieve without the ownership of specific costs and risks.
Service Desk	The single point of contact between the service provider and the users. The Help Desk will answer phone calls and email from our LC End Users, 24 hours a day, and 363 days a year, to open trouble tickets. The Help Desk is closed on the two holidays July 4th and Christmas. Work on tickets opened after hours and on weekends or holidays will begin at 7:00 AM the next business day.
Service Desk Catalogue	A structured document with information about all live IT services, including those available for deployment. The service catalogue is part of the service portfolio and contains information about two type of IT service: customer-facing services that are visible to the SUs; and supporting services required by the service provider to deliver customer-facing services.
Service Level Targets (SLT)	Service Level Targets (SLT) - SLTs are event-driven performance criteria which give context to measures and provide a mathematical basis to understand organizational performance.
Service Request	A request for a routine service has been submitted and will be routed to a Fulfillment Group for action. There are no users or systems experiencing an incident.
Service Unit	Where an affected system or service supports all or the greater part of a Service Unit.
Significance	A term used to identify the different priority levels as a measure of importance to the organization.
SLA	Service Level Agreement - The SLA specifies how specific services related to the operation and management of the commodity IT services will be measured. Service Level Agreement - An SLA is a document that establishes an agreement between an IT service provider and a client to describe IT services, specify the responsibilities of both parties, and document the expected service-level targets
SU	Service Unit
Support Services	Support services are defined by the capabilities that support common business functions performed by nearly all Federal organizations. These include functional areas such as budgeting, financial, human resources, asset, and property and acquisition management.
Telecommunications	This service provides solutions that support the LOC telecommunications needs. This includes the following: <ul style="list-style-type: none"> • Voice: Support for telephony tools, hardware, software, and voice data infrastructure • Data: Support for tools, hardware, and infrastructure that supports data transmission. • Facilities: Oversight support for the Library data center, to include power, location, and cabling.
Telework	This service provides support for an employee to perform work, during any part of regular, paid hours, at an approved alternate worksite (e.g.

Term	Definition
	home or telework center).
Urgency	Is a means for categorizing how quickly an incident or ticket needs to be resolved.
VIP	Where the requestor or the requestor's assistant appears on the approved VIP list.
Wireless	Services provide secure network connectivity to the LOC wireless network for staff and the general public.
Work Degradation	Where an IT system continues to be useable but performs below normal operating levels. A system may be slow to respond to user requests or part of a system may fail entirely with other parts continuing to function.
Work Stoppage	An interruption of IT services or access to one or more systems which results in one or more users not being able to perform routine assigned tasks which they are normally able to perform.
Support Services	Support services are defined by the capabilities that support common business functions performed by nearly all Federal organizations. These include functional areas such as budgeting, financial, human resources, asset, and property and acquisition management.

APPENDIX B: SERVICE CATALOGUE ATTACHED

Service Item	Qualification
Business Applications A – Z (See Appendix C)	<ul style="list-style-type: none"> Need a new account or access to a business application Need a password reset for a business application Need an account unlocked for business application Are unable to authenticate or access a business application
Database (Oracle, SQL and MySQL)	<ul style="list-style-type: none"> Require access to a database resource Are unable to authenticate or access to a database resource Need new DB created DB Troubleshooting DB environment refresh
E-mail and Messaging - Exchange	<ul style="list-style-type: none"> Need a new exchange mailbox created Are unable to access an exchange mailbox Need to request a new group mailbox Need to request access to an existing group mailbox Need to request access to shared calendar
E-mail and Messaging - GroupWise	<ul style="list-style-type: none"> Need to access archived GroupWise mailbox Are unable to access an archived GroupWise Mailbox
E-mail and Messaging - GroupWise Instant Messenger	<ul style="list-style-type: none"> Need to access to GroupWise Instant Messenger Are unable to authenticate to or access an GroupWise Instant Messenger
E-mail and Messaging - Microsoft Outlook (MS Outlook)	<ul style="list-style-type: none"> Need access to a resource (e-mail or calendar) using Microsoft Outlook Are unable to authenticate to or access a resource in Microsoft Outlook
File and Directory Access (Windows, Linux, Solaris, and Unix)	<ul style="list-style-type: none"> Need a few file share created on a Server Need access for an individual or a group to an existing file share on a Server

Service Item	Classification
Remote Access – Remote Desktop Capability	<ul style="list-style-type: none"> • Are unable to access a file share on a Server • Require remote access using Remote Desktop capability
Remote Access - Two-Factor Authentication	<ul style="list-style-type: none"> • Are unable to authenticate or access using Remote Factor Authentication • Require access to Library of Congress resources using Two-Factor Authentication • Are unable to authenticate or access Library of Congress resources using Two-Factor Authentication • Need a new account or access to a business application • Need a password reset for a business application • Need an account un-locked for business application • Are unable to authenticate or access a business application • Require access to a database resource • Are unable to authenticate or access to a database resource • Need new DB created • DB Troubleshooting • DB environment refresh
Database (Oracle, SQL and MySQL)	<ul style="list-style-type: none"> • Need a new exchange mailbox created • Are unable to access an exchange mailbox • Need to request a new group mailbox • Need to request access to an existing group mailbox • Need to request access to shared calendar • Need to access archived GroupWise mailbox • Are unable to access an archived GroupWise Mailbox • Need to access to GroupWise Instant Messenger • Are unable to authenticate to or access an GroupWise Instant Messenger
E-mail and Messaging - Exchange	<ul style="list-style-type: none"> • Need access to a resource (e-mail or calendar) using Microsoft Outlook • Are unable to authenticate to or access a resource in Microsoft Outlook
E-mail and Messaging - GroupWise	
E-mail and Messaging - GroupWise Instant Messenger	
E-mail and Messaging - Microsoft Outlook (MS Outlook)	

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Service Item	Classification
File and Directory Access (Windows, Linux, Solaris, and Unix)	<p>Outlook</p> <ul style="list-style-type: none"> • Need a few file share created on a Server • Need access for an individual or a group to an existing file share on a Server • Are unable to access a file share on a Server • Require remote access using Remote Desktop capability <p>Are unable to authenticate or access using Remote</p>
Remote Access - Remote Desktop Capability	<ul style="list-style-type: none"> • Require access to Library of Congress resources using Two-Factor Authentication • Are unable to authenticate or access Library of Congress resources using Two-Factor Authentication
Remote Access - Two-Factor Authentication	<ul style="list-style-type: none"> • Require VPN/remote access to Library of Congress resources • Are unable to authenticate or access Library of Congress resources using VPN/remote access
Remote Access - VPN	<ul style="list-style-type: none"> • Need a new account created to access a UNIX server • Need a password re-set on a Unix server • Need an account unlocked on a Unix server • Are unable to authenticate on a Unix server
Unix Server	<p>Data Access: Sensitive</p> <ul style="list-style-type: none"> • Need a new LIB account created associated with access to Sensitive data • Need a new LOC TEST account created associated with access to Sensitive data • Need a password re-set in LIB associated with access to Sensitive data • Need an account unlocked in LIB associated with access to Sensitive data • Need a password re-set in LOC TEST associated with access to Sensitive data
Windows Server - Active Directory	

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Service Item	Classification
	<ul style="list-style-type: none"> • Need an account unlocked in LOCTEST associated with access to Sensitive data • Are unable to authenticate (log in) to LIB associated with access to Sensitive data • Are unable to authenticate (log in) to LOCTEST associated with access to Sensitive data
Windows Server - Active Directory	<p>Data Access: Non Sensitive</p> <ul style="list-style-type: none"> • Need a new LIB account created associated with access to Non-Sensitive data • Need a new LOCTEST account created associated with access to Non-Sensitive data • Need a password re-set in LIB associated with access to Non-Sensitive data • Need an account unlocked in LIB associated with access to Non-Sensitive data • Need a password re-set in LOCTEST associated with access to Non-Sensitive data • Need an account unlocked in LOCTEST associated with access to Non-Sensitive data • Are unable to authenticate (log in) to LIB associated with access to Non-Sensitive data • Are unable to authenticate (log in) to LOCTEST associated with access to Non-Sensitive data
Assistive Technology - Assessment - Deaf and Hard of Hearing Hardware	<ul style="list-style-type: none"> • Require the assessment of deaf and hard of hearing hardware
Assistive Technology - Assessment - Deaf and Hard of Hearing Software	<ul style="list-style-type: none"> • Require the assessment of deaf and hard of hearing software
Assistive Technology - Assessment - Low Vision Hardware	<ul style="list-style-type: none"> • Require the assessment of low vision hardware

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Service Item	Classification
Assistive Technology - Assessment - Low Vision Software	<ul style="list-style-type: none"> Require the assessment of low vision software
Assistive Technology - Assessment - Blind Hardware	<ul style="list-style-type: none"> Require the assessment of blind hardware
Assistive Technology - Assessment - Blind Software	<ul style="list-style-type: none"> Require the assessment of blind software
Assistive Technology - Assessment - Dexterity Hardware	<ul style="list-style-type: none"> Require the assessment of dexterity hardware
Assistive Technology - Assessment - Dexterity Software	<ul style="list-style-type: none"> Require the assessment of dexterity software
Assistive Technology - Assessment - Cognitive Disabilities Hardware	<ul style="list-style-type: none"> Require the assessment of cognitive disabilities hardware
Assistive Technology - Assessment - Cognitive Disabilities Software	<ul style="list-style-type: none"> Require the assessment of cognitive disabilities software
Assistive Technology - Assessment - Voice Recognition Hardware	<ul style="list-style-type: none"> Require the assessment of voice recognition hardware
Assistive Technology - Assessment - Voice Recognition Software	<ul style="list-style-type: none"> Require the assessment of voice recognition software
Assistive Technologies - Loaners - Deaf and Hard of Hearing Hardware	<ul style="list-style-type: none"> Require temporary access to or use of deaf and hard of hearing hardware Experience functionality or operability issues with loaned deaf and hard of hearing hardware
Assistive Technologies - Loaners - Deaf and Hard of Hearing Software	<ul style="list-style-type: none"> Require temporary access to or use of deaf and hard of hearing software Experience functionality or operability issues with loaned deaf and hard of hearing software
Assistive Technologies - Loaners - Low Vision Hardware	<ul style="list-style-type: none"> Require temporary access to or use of loaned low vision hardware Experience functionality or operability issues with loaned low vision hardware
Assistive Technologies - Loaners - Low Vision Software	<ul style="list-style-type: none"> Require temporary access to or use of loaned low vision software Experience functionality or operability issues with loaned low vision software

Service Item	Certification
Assistive Technologies – Loaners - Blind Hardware	<ul style="list-style-type: none"> • Require temporary access to or use of loaned blind hardware • Experience functionality or operability issues with loaned blind hardware
Assistive Technologies – Loaners - Blind Software	<ul style="list-style-type: none"> • Require temporary access to or use of loaned blind software • Experience functionality or operability issues with loaned blind software
Assistive Technologies – Loaners - Dexterity Hardware	<ul style="list-style-type: none"> • Require temporary access to or use of loaned dexterity software • Experience functionality or operability issues with loaned dexterity software
Assistive Technologies – Loaners - Dexterity Software	<ul style="list-style-type: none"> • Require temporary access to or use of loaned dexterity hardware • Experience functionality or operability issues with loaned dexterity hardware
Assistive Technologies – Loaners - Cognitive Disabilities Hardware	<ul style="list-style-type: none"> • Require temporary access to or use of loaned cognitive disabilities software • Experience functionality or operability issues with loaned cognitive disabilities software
Assistive Technologies – Loaners - Cognitive Disabilities Software	<ul style="list-style-type: none"> • Require temporary access to or use of loaned cognitive disabilities hardware • Experience functionality or operability issues with loaned cognitive disabilities hardware
Assistive Technologies – Loaners - Voice Recognition Hardware	<ul style="list-style-type: none"> • Require temporary access to or use of loaned voice recognition hardware • Experience functionality or operability issues with loaned voice recognition hardware
Assistive Technologies – Loaners - Voice Recognition Software	<ul style="list-style-type: none"> • Require temporary access to or use of loaned voice recognition software • Experience functionality or operability issues with loaned voice recognition software

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Service Item	Classification
Assistive Technologies – Loaners - Deaf and Hard of Hearing Hardware	<ul style="list-style-type: none"> Require testing of new, emerging, or existing deaf and hard of hearing hardware
Assistive Technologies – Testing - Deaf and Hard of Hearing Software	<ul style="list-style-type: none"> Require testing of new, emerging, or existing deaf and hard of hearing software
Assistive Technologies – Testing - Low Vision Hardware	<ul style="list-style-type: none"> Require testing of new, emerging, or existing low vision hardware
Assistive Technologies – Testing - Low Vision Software	<ul style="list-style-type: none"> Require testing of new, emerging, or existing low vision software
Assistive Technologies – Testing - Blind Hardware	<ul style="list-style-type: none"> Require testing of new, emerging, or existing blind hardware
Assistive Technologies – Testing - Blind Software	<ul style="list-style-type: none"> Require testing of new, emerging, or existing blind software
Assistive Technologies – Testing - Dexterity Hardware	<ul style="list-style-type: none"> Require testing of new, emerging, or existing dexterity hardware
Assistive Technologies – Testing - Dexterity Software	<ul style="list-style-type: none"> Require testing of new, emerging, or existing dexterity software
Assistive Technologies – Testing - Cognitive Disabilities Hardware	<ul style="list-style-type: none"> Require testing of new, emerging, or existing cognitive disabilities hardware
Assistive Technologies – Testing - Cognitive Disabilities Software	<ul style="list-style-type: none"> Require testing of new, emerging, or existing cognitive disabilities software
Assistive Technologies – Testing - Voice Recognition Hardware	<ul style="list-style-type: none"> Require testing of new, emerging, or existing voice recognition hardware
Assistive Technologies – Testing - Voice Recognition Software	<ul style="list-style-type: none"> Require testing of new, emerging, or existing voice recognition software
Communication Devices- TTY	<ul style="list-style-type: none"> Require a TTY device to support text communication over a telephone line
Communication Devices - Video Phone	<ul style="list-style-type: none"> Experience functionality or operability issues with a TTY device Require a video phone device to support visual communication or display over a phone line Experience functionality or operability with a video phone device
New Technology Analysis - Deaf and Hard of Hearing	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging

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Service Item	Classification
Hardware	deaf and hard of hearing hardware
New Technology/ Analysis - Deaf and Hard of Hearing Software	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging deaf and hard of hearing software
New Technology/ Analysis - Low Vision Hardware	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging low vision hardware
New Technology/ Analysis - Low Vision Software	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging low vision software
New Technology/ Analysis - Blind Hardware	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging blind hardware
New Technology/ Analysis - Blind Software	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging blind software
New Technology/ Analysis - Dexterity Hardware	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging dexterity hardware
New Technology/ Analysis - Dexterity Software	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging dexterity software
New Technology/ Analysis - Cognitive Disabilities Hardware	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging cognitive disabilities hardware
New Technology/ Analysis - Cognitive Disabilities Software	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging cognitive disabilities software
New Technology/ Analysis - Voice Recognition Hardware	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging voice recognition hardware
New Technology/ Analysis - Voice Recognition Software	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging voice recognition software
Audio Visual	<ul style="list-style-type: none"> Require audio and/or visual equipment/ capabilities in support of a meeting or event Experience functional or operability issues with audio and/or visual equipment or capabilities
Assistive Technologies - Loaners - Deaf and Hard of Hearing Hardware	<ul style="list-style-type: none"> Require temporary access to or use of deaf and hard of hearing hardware

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Service Item	Classification	
Assistive Technologies – Loaners - Deaf and Hard of Hearing Software	<ul style="list-style-type: none"> • Experience functionality or operability issues with loaned deaf and hard of hearing hardware • Require temporary access to or use of deaf and hard of hearing software • Experience functionality or operability issues with loaned deaf and hard of hearing software 	Assistive Technologies – Loaners - Low Vision Hardware
Assistive Technologies – Loaners - Low Vision Hardware	<ul style="list-style-type: none"> • Require temporary access to or use of loaned low vision hardware • Experience functionality or operability issues with loaned low vision hardware 	Assistive Technologies – Loaners - Low Vision Software
Assistive Technologies – Loaners - Low Vision Software	<ul style="list-style-type: none"> • Require temporary access to or use of loaned low vision software • Experience functionality or operability issues with loaned low vision software 	Assistive Technologies – Loaners - Blind Hardware
Assistive Technologies – Loaners - Blind Hardware	<ul style="list-style-type: none"> • Require temporary access to or use of loaned blind hardware • Experience functionality or operability issues with loaned blind hardware 	Assistive Technologies – Loaners - Blind Software
Assistive Technologies – Loaners - Blind Software	<ul style="list-style-type: none"> • Require temporary access to or use of loaned blind software • Experience functionality or operability issues with loaned blind software 	Assistive Technologies – Loaners - Dexterity Hardware
Assistive Technologies – Loaners - Dexterity Hardware	<ul style="list-style-type: none"> • Require temporary access to or use of loaned dexterity hardware • Experience functionality or operability issues with loaned dexterity hardware 	Assistive Technologies – Loaners - Dexterity Software
Assistive Technologies – Loaners - Dexterity Software	<ul style="list-style-type: none"> • Require temporary access to or use of loaned dexterity software • Experience functionality or operability issues with loaned dexterity software 	Assistive Technologies – Loaners - Cognitive Disabilities Hardware
Assistive Technologies – Loaners - Cognitive Disabilities Hardware	<ul style="list-style-type: none"> • Require temporary access to or use of loaned cognitive disabilities hardware • Experience functionality or operability issues with loaned cognitive disabilities hardware 	Assistive Technologies – Loaners - Cognitive Disabilities Software

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Services/Item	Classification
Assistive Technologies – Loaners - Cognitive Disabilities Software	<ul style="list-style-type: none"> • Experience functionality or operability issues with loaned cognitive disabilities software • Require temporary access to or use of loaned cognitive disabilities hardware • Experience functionality or operability issues with loaned cognitive disabilities hardware
Assistive Technologies – Loaners - Voice Recognition Hardware	<ul style="list-style-type: none"> • Require temporary access to or use of loaned voice recognition hardware • Experience functionality or operability issues with loaned voice recognition hardware
Assistive Technologies – Loaners - Voice Recognition Software	<ul style="list-style-type: none"> • Require temporary access to or use of loaned voice recognition software • Experience functionality or operability issues with loaned voice recognition software
Assistive Technologies – Loaners - Deaf and Hard of Hearing Hardware	<ul style="list-style-type: none"> • Require testing of new, emerging, or existing deaf and hard of hearing hardware
Assistive Technologies – Testing - Deaf and Hard of Hearing Software	<ul style="list-style-type: none"> • Require testing of new, emerging, or existing deaf and hard of hearing software
Assistive Technologies – Testing - Low Vision Hardware	<ul style="list-style-type: none"> • Require testing of new, emerging, or existing low vision hardware
Assistive Technologies – Testing - Low Vision Software	<ul style="list-style-type: none"> • Require testing of new, emerging, or existing low vision software
Assistive Technologies – Testing - Blind Hardware	<ul style="list-style-type: none"> • Require testing of new, emerging, or existing blind hardware
Assistive Technologies – Testing - Blind Software	<ul style="list-style-type: none"> • Require testing of new, emerging, or existing blind software
Assistive Technologies – Testing - Dexterity Hardware	<ul style="list-style-type: none"> • Require testing of new, emerging, or existing dexterity hardware
Assistive Technologies – Testing - Dexterity Software	<ul style="list-style-type: none"> • Require testing of new, emerging, or existing dexterity software
Assistive Technologies – Testing - Cognitive Disabilities Hardware	<ul style="list-style-type: none"> • Require testing of new, emerging, or existing cognitive disabilities hardware

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Service Item	Classification
Assistive Technologies – Testing Cognitive Disabilities Software	<ul style="list-style-type: none"> Require testing of new, emerging, or existing cognitive disabilities software
Assistive Technologies – Testing - Voice Recognition Hardware	<ul style="list-style-type: none"> Require testing of new, emerging, or existing voice recognition hardware
Assistive Technologies – Testing - Voice Recognition Software	<ul style="list-style-type: none"> Require testing of new, emerging, or existing voice recognition software
Communication Devices - TTY	<ul style="list-style-type: none"> Require a TTY device to support text communication over a telephone line
Communication Devices - Video Phone	<ul style="list-style-type: none"> Experience functionality or operability issues with a TTY device or display over a phone line Experience functionality or operability with a video phone device
New Technology Analysis - Deaf and Hard of Hearing Hardware	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging deaf and hard of hearing hardware
New Technology Analysis - Deaf and Hard of Hearing Software	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging deaf and hard of hearing software
New Technology Analysis - Low Vision Hardware	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging low vision hardware
New Technology Analysis - Low Vision Software	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging low vision software
New Technology Analysis - Blind Hardware	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging blind hardware
New Technology Analysis - Blind Software	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging blind software
New Technology Analysis - Dexterity Hardware	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging dexterity hardware
New Technology Analysis - Dexterity Software	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging dexterity software

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Service Item	Classification
New Technology Analysis - Cognitive Disabilities Hardware	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging cognitive disabilities hardware
New Technology Analysis - Cognitive Disabilities Software	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging cognitive disabilities software
New Technology Analysis - Voice Recognition Hardware	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging voice recognition hardware
New Technology Analysis - Voice Recognition Software	<ul style="list-style-type: none"> Require analysis or consultation regarding new or emerging voice recognition software
Audio Visual	<ul style="list-style-type: none"> Require audio and/or visual equipment/ capabilities in support of a meeting or event Experience functional or operability issues with audio and/or visual equipment or capabilities
Backup	<ul style="list-style-type: none"> Experience functionality or operability issue related to a backup Require a backup for a specific system or resource
Files & Content Storage	<ul style="list-style-type: none"> Experience functionality or operability issue related to a file or content storage that has been up or recovered
Restore/Recovery	<ul style="list-style-type: none"> Experience functionality or operability issue related to a restoration
Database Administration	<ul style="list-style-type: none"> Require a restoration/ recovery for a specific system or resource Require Database Administration (DBA) support for the administration of a database
Database Analysis and Design	<ul style="list-style-type: none"> Require Database Administration (DBA) support for the analysis and/or design of a few or existing database
Database Backup and Restore	<ul style="list-style-type: none"> Require Database Administration (DBA) support for the backups and/or restores of a database
Database Consulting	<ul style="list-style-type: none"> Require consultation support for initiatives that require/ will require a database component
Database Development and Implementation	<ul style="list-style-type: none"> Requires Database Administration (DBA) support for the development and/or implementation of a new or existing

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Service Item	Classification
Database Performance Monitor and Tune	database <ul style="list-style-type: none"> Requires Database Administration (DBA) support for monitoring and/or tuning a database for performance
Database Refresh and Copy	<ul style="list-style-type: none"> Requires Database Administration (DBA) support for the refresh or copy of a database
Database Reporting	<ul style="list-style-type: none"> Requires Database Administration (DBA) support for reporting/reports from a new or existing database
Database Support and Maintenance	<ul style="list-style-type: none"> Requires Database Administration (DBA) support for troubleshooting of a database
Security Advisement	<ul style="list-style-type: none"> Requires Database Administration (DBA) support for maintenance of a database Require security advisement in support of a new project or initiative
Security Governance and Risk Compliance	<ul style="list-style-type: none"> Require security advisement in support of an existing system, infrastructure component, or an application Have an inquiry related to security governance and risk compliance (policy, waivers, processes, etc.)
Security Monitoring Detection and Prevention (LCSOC) - Email encryption	<ul style="list-style-type: none"> Service Property: Entrusts Digital Certificates: Text needed
Security Monitoring Detection and Prevention (LCSOC) - Incident Handling	<ul style="list-style-type: none"> Category 1: Unauthorized Access Text needed
Security Monitoring Detection and Prevention (LCSOC) - Incident Handling	<ul style="list-style-type: none"> Category 2: Denial of Service Text needed
Security Monitoring Detection and Prevention (LCSOC) - Incident Handling	<ul style="list-style-type: none"> Category 3: Malicious Code Text needed
Security Monitoring Detection and Prevention (LCSOC) - Incident Handling	<ul style="list-style-type: none"> Category 4: Multiple Components Text needed
Security Monitoring Detection and Prevention (LCSOC) - Incident Handling	<ul style="list-style-type: none"> Category 5: Recon Activity Text needed

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Service Item	Classification	
Security Monitoring Detection and Prevention (LCSOC) - Incident Handling	• Category 6: Unsolicited Communication • Text needed	<ul style="list-style-type: none"> • Category 7: Inappropriate Usage • Text needed • Category 8: Other • Text needed • Blocked Website Waiver • Text needed • Blocking Email Address • Text needed • Blocked Website Waiver • Text needed • DNS Black Hole • Text needed • Firewall • Text needed • HBSS • Text needed • IronPort • Text needed • ITS NOC Support • Text needed • Sourcefire IDs • Text needed • Have an inquiry related to security governance and risk compliance (policy, waivers, processes, etc.) • Service Property: Entrusts Digital Certificates: • Text needed • Category 1: Unauthorized Access
Security Monitoring Detection and Prevention (LCSOC) - Incident Handling		
Security Monitoring Detection and Prevention (LCSOC) - Incident Handling		
Security Monitoring Detection and Prevention (LCSOC) - Request for Service		
Security Governance and Risk Compliance		<ul style="list-style-type: none"> • Have an inquiry related to security governance and risk compliance (policy, waivers, processes, etc.) • Service Property: Entrusts Digital Certificates: • Text needed • Category 1: Unauthorized Access
Security Monitoring Detection and Prevention (LCSOC) - Email encryption		
Security Monitoring Detection and Prevention (LCSOC) -		

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Service Item	Classification
Incident Handling	<ul style="list-style-type: none"> • Text needed
Security Monitoring Detection and Prevention (LCSOC)-	<ul style="list-style-type: none"> • Category 2: Denial of Service
Incident Handling	<ul style="list-style-type: none"> • Text needed
Security Monitoring Detection and Prevention (LCSOC)-	<ul style="list-style-type: none"> • Category 3: Malicious Code
Incident Handling	<ul style="list-style-type: none"> • Text needed
Security Monitoring Detection and Prevention (LCSOC)-	<ul style="list-style-type: none"> • Category 4: Multiple Components
Incident Handling	<ul style="list-style-type: none"> • Text needed
Security Monitoring Detection and Prevention (LCSOC)-	<ul style="list-style-type: none"> • Category 5: Recon Activity
Incident Handling	<ul style="list-style-type: none"> • Text needed
Security Monitoring Detection and Prevention (LCSOC)-	<ul style="list-style-type: none"> • Category 6: Unsolicited Communication
Incident Handling	<ul style="list-style-type: none"> • Text needed
Security Monitoring Detection and Prevention (LCSOC)-	<ul style="list-style-type: none"> • Category 7: Inappropriate Usage
Incident Handling	<ul style="list-style-type: none"> • Text needed
Security Monitoring Detection and Prevention (LCSOC)-	<ul style="list-style-type: none"> • Category 8: Other
Incident Handling	<ul style="list-style-type: none"> • Text needed
Security Monitoring Detection and Prevention (LCSOC)-	<ul style="list-style-type: none"> Blocked Website Waiver
Request for Service	<ul style="list-style-type: none"> • Text needed Blocked Email Address • Text needed Blocked Website Waiver • Text needed DNS Black Hole • Text needed Firewall • Text needed HBSS • Text needed IronPort • Text needed

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Service Item	Classification
ITS NOC Support • Text needed Sourcefire IDs Text needed	ITS NOC Support • Text needed Sourcefire IDs Text needed
Security Monitoring Detection and Prevention (LCSOC) - Security Announcements and Awareness	<ul style="list-style-type: none"> • Security Advisories Text needed • Security Alerts Text needed • Security Information Bulletin Text needed
Security Monitoring Detection and Prevention (LCSOC) - Threat Monitoring and Vulnerability Handling Security Scanning	<ul style="list-style-type: none"> • US-CERT Reports Text needed • Require a security scan of a system, infrastructure component, or application • Have a question regarding security scan of a system, infrastructure component, or application • Require assistance with NetWitness • Experience functionality or operability issues with NetWitness • Require assistance with Security Center • Experience functionality or operability issues with Security Center
Security Tools Hosting - NetWitness	
Security Tools Hosting - Security Center	
Security Tools Hosting - Encase	<ul style="list-style-type: none"> • Require assistance with Encase • Experience functionality or operability issues with Encase
Security Tools Hosting - Trusted Agent FISMA	<ul style="list-style-type: none"> • Require assistance with Trusted Agent FISMA • Experience functionality or operability issues with Trusted Agent FISMA
Security Tools Hosting - Aresight	<ul style="list-style-type: none"> • Require assistance with Aresight • Experience functionality or operability issues with Aresight
Security Tools Hosting - FireEye	<ul style="list-style-type: none"> • Require assistance with FireEye

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Service Item	Classification
Security Tools Hosting - Cyfir	<ul style="list-style-type: none"> • Experience functionality or operability issues with FireEye • Require assistance with Cyfir
Security Tools Hosting - Jump3	<ul style="list-style-type: none"> • Experience functionality or operability issues with Cyfir • Require assistance with Jump3
Security Tools Hosting - AppDetective	<ul style="list-style-type: none"> • Experience functionality or operability issues with Jump3 • Require assistance with AppDetective • Experience functionality or operability issues with AppDetective
Security Tools Hosting - Appscan	<ul style="list-style-type: none"> • Require assistance with Appscan • Experience functionality or operability issues with Appscan
Security Tools Hosting - CoreInsight	<ul style="list-style-type: none"> • Require assistance with CoreInsight • Experience functionality or operability issues with CoreInsight
Security Tools Hosting - CoreImpact	<ul style="list-style-type: none"> • Require assistance with CoreImpact • Experience functionality or operability issues with CoreImpact
Security Tools Hosting - Nessus Scan	<ul style="list-style-type: none"> • Require assistance with Nessus Scan • Experience functionality or operability issues with Nessus Scan
Security Tools Hosting - Penetration Test	<ul style="list-style-type: none"> • Require assistance with Penetration Test • Experience functionality or operability issues with Penetration Test
Security Tools Hosting - Source Code Analysis	<ul style="list-style-type: none"> • Test • Require assistance with Source Code Analysis • Experience functionality or operability issues with Source Code Analysis
Audio Conferencing	<ul style="list-style-type: none"> • Require audio conferencing capability in support of a meeting or event • Experience functionality or operability issues related to audio conferencing
E-mail and Messaging - Exchange	<ul style="list-style-type: none"> • Experience functionality or operability issues with a Microsoft Exchange server (not receiving e-mail, not sending e-mail, issues with access to shared mailboxes or calendars, etc.)

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Service Item	Classification
E-mail and Messaging - GroupWise	<ul style="list-style-type: none"> • Experience functionality or operability issues with GroupWise mail mailboxes or account
E-mail and Messaging - Group Wise Instant Messenger	<ul style="list-style-type: none"> • Experience functionality or operability issues with GroupWise Instant Messenger
E-mail and Messaging - Microsoft Outlook (MS Outlook)	<ul style="list-style-type: none"> • Experience functionality or operability issues with e-mail as it is managed by Microsoft Outlook (folders, setting up access to shared calendars, folder, or mailboxes, views or preferences, etc.)
E-mail and Messaging - Instant Messaging	GroupWise Instant Messenger: <ul style="list-style-type: none"> • Experience functionality or operability issues with Instant Messaging
Video Conferencing and Collaboration	<ul style="list-style-type: none"> • Require video conferencing capability in support of a meeting or event • Experience functionality or operability issues related to video conferencing
Aircard	<ul style="list-style-type: none"> • Require a Library-provisioned Aircard • Experience functionality or operability issues with a Library-provisioned Aircard
Laptop - Workstation Hardware	<ul style="list-style-type: none"> • Experience functionality or operability issues with encryption of a Library-provisioned laptop • Experience functionality or operability issues with virus protection software on a Library-provisioned laptop
Laptop - Workstation Software - Core	<ul style="list-style-type: none"> • Experience functionality or operability issues with the core software on a Library-provisioned laptop
Laptop -Workstation Software - Non-Core	<ul style="list-style-type: none"> • Experience functionality or operability issues with the non-core software of a Library-provisioned laptop • Require installation/deployment of non-core software on a Library-provisioned laptop
Pager	<ul style="list-style-type: none"> • Require a Library-provisioned pager

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Service Item	Classification
Phone - Library-Owned-E-mail	<ul style="list-style-type: none"> • Experience functionality or operability issues with a Library-provisioned pager • Experience functionality or operability issues with e-mail (sending, receiving, etc.) on a Library-provisioned mobile device • Experience functionality or operability issues with calendar on a Library-provisioned mobile device
Phone - Library-Owned-Operating System and Applications	<ul style="list-style-type: none"> • Experience functionality or operability issues with the operating system or application on a Library-provisioned mobile device • Require a patch or update to the operating system and/or application on a Library-provisioned mobile device
Phone - Library-Owned-Provisioning	<ul style="list-style-type: none"> • Require that a Library-provisioned mobile device be provisioned to a user (using QIT)
Phone - Library-Owned-Voice	<ul style="list-style-type: none"> • Experience functionality or operability issues using the phone/voice communication on a Library-provisioned mobile device
Phone - Personal (BYOD) - E-mail	<ul style="list-style-type: none"> • Experience functionality or operability issues sending or receiving Library e-mail on a personal (BYOD) mobile device • Experience functionality or operability issues with Library calendar on a personal (BYOD) mobile device
Phone - Personal (BYOD) - Provisioning	<ul style="list-style-type: none"> • Require that a personal (BYOD) device be configured to sync up with a user's Library e-mail and calendar (use QIT)
Tablet	<ul style="list-style-type: none"> • Experience functionality or operability issues with a Library-provisioned tablet device
Access Control	<ul style="list-style-type: none"> • Require access to an internet or intranet resource to which user does not currently have
IP Address Management	<ul style="list-style-type: none"> • Experience functionality or operability issues related to an IP address or an IP address space

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Service Item	Classification
	<ul style="list-style-type: none"> Require consultation or advisement related to an IP address or an IP address space Require a new IP address or an IP address pace
Monitoring and Management	<ul style="list-style-type: none"> Experience functionality or operability issues with network traffic or access Require that network speed or access related to a system, infrastructure component, or application to be monitored and/or managed
Remote Access - Remote Desktop (RDP)	<ul style="list-style-type: none"> Experience functionality or operability issues with Remote Desktop from workstation
Remote Access - Two-Factor Authentication	<ul style="list-style-type: none"> Experience functionality or operability issues with two-factor authentication Require the capability to authenticate using two-factor authentication
Remote Access - VPN	<ul style="list-style-type: none"> Experience functionality or operability issues with VPN access to the Library technology resources Require the capability to authenticate VPN access
Routing	<ul style="list-style-type: none"> Experience functionality or operability issues related to network packet routing Require consultation or advisement related to network packet routing
Public Facing Web	<ul style="list-style-type: none"> Experience functionality or operability issues with a public facing Library-managed internet site (loc.gov, copyright.gov, etc.)
Human Resources	<ul style="list-style-type: none"> Require access to Library resources for a new staff member, contractor, intern, fellow, or volunteer
Human Resources	<ul style="list-style-type: none"> Require removal of access to Library resources for a new staff member, contractor, intern, fellow, or volunteer
Server Hosting	<ul style="list-style-type: none"> Experience functionality or operability issues on a Server

Service Item	Classification
(Windows, Linux, Solaris and Unix)	<ul style="list-style-type: none"> Require (in conjunction with an approved project) a new Server
Storage for Existing System	<ul style="list-style-type: none"> Experience functionality or operability issues related to existing storage for an existing system
Storage for Existing System	<ul style="list-style-type: none"> Require new or additional storage for an existing system Experience functionality or operability issues related to existing storage for a new system Require new or additional storage for a new system
Business Applications A-Z - (See Appendix - C)	<ul style="list-style-type: none"> Experience functionality or operability issues with a business application
Infrastructure System	<ul style="list-style-type: none"> Experience functionality or operability issues with an infrastructure or IT supporting system (SCCM, ePO, etc.)
Data Cabling	<ul style="list-style-type: none"> Experience functionality or operability issues related to data cabling
Design and Construction	<ul style="list-style-type: none"> Require new, upgraded, or replacement data cabling Require design and construction support related to routing data (cabling, switches, Wi-Fi, etc.)
End-User Network	<ul style="list-style-type: none"> Experience functionality or operability issues related to end-user data connections to the network Require a new data port or activation of an existing data port
Data Cabling	<ul style="list-style-type: none"> Experience functionality or operability issues related to data cabling Require new, upgraded, or replacement data cabling
Data Center Space Management	<ul style="list-style-type: none"> Experience functionality, operability, or space issues related to the layout/footprint in the data center Require additional or movement of hardware that will impact the layout/footprint of the data center
Voice Cabling	<ul style="list-style-type: none"> Experience functionality or operability issues related to voice cabling

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Service Item	Classification
Audio Conferencing	<ul style="list-style-type: none"> • Require new, upgraded, or replacement voice cabling • Require audio conferencing capability in support of a meeting or event • Experience functionality or operability issues related to audio conferencing
Call Center	<ul style="list-style-type: none"> • Experience issues related to or require support from the Library Call Center
Carrier Services	<ul style="list-style-type: none"> • Experience functionality or operability issues with the mobile carrier on their repeaters/ antennas on the Library campus
Design and Construction	<ul style="list-style-type: none"> • Require design and construction support related to routing voice data (cabling, switches, etc.).
Mobile Voice	<ul style="list-style-type: none"> • Have a question about a mobile device • Experience functionality or operability issues with a Library-issued mobile phone • Experience functionality or operability issues with Library mail or calendar on a BYOD mobile phone
Pagers	<ul style="list-style-type: none"> • Experience functionality or operability issues with a Library-issued pager
Telephony - Hardware - Bad Cord	<ul style="list-style-type: none"> • Require that a pager be issued • Experience functionality or operability issues related to a bad cord on user's telephone
Telephony - Hardware - Bad Keypad	<ul style="list-style-type: none"> • Experience functionality or operability issues with the keypad on user's telephone
Telephony - Hardware - Cannot be heard	<ul style="list-style-type: none"> • Experience functionality or operability issues with being heard by the other party from user's telephone
Telephony - Hardware - Cannot hear caller	<ul style="list-style-type: none"> • Experience functionality or operability issues hearing a caller from user's telephone
Telephony - Hardware - Change Set	<ul style="list-style-type: none"> • Require a change of the telephone hardware set
Telephony - Hardware - Does not ring	<ul style="list-style-type: none"> • Experience functionality or operability issues with the ringer on user's

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Service Item	Classification
Telephony - Hardware - Installation	telephone
Telephony - Hardware - Line Noise	<ul style="list-style-type: none"> Require that a telephone set be installed
Telephony - Hardware - Move	<ul style="list-style-type: none"> Experience line noise when using telephone Require that a telephone set be moved
Telephony - Hardware - No Dial Tone	<ul style="list-style-type: none"> Hear no dial tone when user picks up the receiver on his/her telephone
Telephony - Hardware - No Lights	<ul style="list-style-type: none"> See no lights or have issues with the lights on user's telephone
Telephony - Hardware - Hardware	<ul style="list-style-type: none"> Experience other issues with hardware on user's telephone
Telephony - Software - Software	<ul style="list-style-type: none"> Experience functionality or operability issues when calling a specific area code or split
Telephony - Software - Audix	<ul style="list-style-type: none"> Experience functionality or operability issues with the voice mail system/ Audix
Telephony - Software - Cannot be called	<ul style="list-style-type: none"> Internal or external callers are unable to reach someone at a Library
Telephony - Software - Cannot call outside	<ul style="list-style-type: none"> Are unable to call out to an external user/ party, using a Library telephone
Telephony - Software - Cannot call within	<ul style="list-style-type: none"> Are unable to call to an internal Library extension/ party
Telephony - Software - Require Name Change	<ul style="list-style-type: none"> Require a name change on user's telephone
Telephony - Software - No "19" Call Pickup	<ul style="list-style-type: none"> Experience functionality or operability issues with the Call Pickup feature
Telephony - Software - Other Software	<ul style="list-style-type: none"> Experience other software issues with user's telephone
Voice Cabling	<ul style="list-style-type: none"> Experience functionality or operability issues with voice cabling Require additional or replacement voice cabling
Peripherals - Barcode Scanners	<ul style="list-style-type: none"> Experience functionality or operability issues with a barcode scanner Required that a barcode scanner be configured/ installed on a workstation
Peripherals - Desktop Scanners	<ul style="list-style-type: none"> Experience functionality or operability issues with a desktop scanner Required that a desktop scanner be configured/ installed on a workstation

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Service Item	Classification
Peripherals - Label Makers	workstation <ul style="list-style-type: none"> • Experience functionality or operability issues with a label maker • Required that a label maker be configured/installed on a workstation
Peripherals - Printers	<ul style="list-style-type: none"> • Experience functionality or operability issues with a printer • Required that a printer be configured/installed on the network • Required that a printer be configured/installed on a workstation
Remote Desk Top (RDP)	<ul style="list-style-type: none"> • Experience functionality or operability issues with Remote Desktop from user's workstation
Thin Client	<ul style="list-style-type: none"> • Experience functionality or operability issues with the thin client machines located in the Reading Rooms
Workstation Hardware	<ul style="list-style-type: none"> • Experience functionality or operability issues with workstation hardware • Require additional or replacement workstation hardware
Workstation Security	<ul style="list-style-type: none"> • Experience functionality or operability issues with encryption on user's Library workstation • Experience functionality or operability issues with virus protection software on user's workstation
Workstation Software - Core - Adobe Air	<ul style="list-style-type: none"> • Experience functionality or operability issues with Adobe Air on user's Library workstation
Workstation Software - Core - Adobe Flash Player	<ul style="list-style-type: none"> • Experience functionality or operability issues with Adobe Flash Player on user's Library workstation
Workstation Software - Core - Adobe Reader	<ul style="list-style-type: none"> • Experience functionality or operability issues with Adobe Reader on user's Library workstation
Workstation Software - Core - Adobe Shockwave Player	<ul style="list-style-type: none"> • Experience functionality or operability issues with Adobe Shockwave Player on user's Library workstation
Workstation Software - Core - Apple QuickTime	<ul style="list-style-type: none"> • Experience functionality or operability issues with Apple QuickTime on user's Library workstation
Workstation Software - Core - Apple Safari	<ul style="list-style-type: none"> • Experience functionality or operability issues with Apple Safari on user's Library workstation
Workstation Software - Core - Corel WinZip	<ul style="list-style-type: none"> • Experience functionality or operability issues with Corel WinZip on

Service Item	Classification
Workstation Software – Core - Cyberlink PowerDVD	user's Library workstation <ul style="list-style-type: none"> • Experience functionality or operability issues with Cyberlink PowerDVD on user's Library workstation
Workstation Software – Core - Dell Open Manager Client	<ul style="list-style-type: none"> • Experience functionality or operability issues with Dell Open Manager Client on user's Library workstation
Workstation Software – Core - Encase Cybersecurity	<ul style="list-style-type: none"> • Experience functionality or operability issues with Encase Cybersecurity on user's Library workstation
Workstation Software – Core - Hypersnaptech Hypersnap	<ul style="list-style-type: none"> • Experience functionality or operability issues with Hypersnaptech Hypersnap on user's Library workstation
Workstation Software – Core - IrfanSkiljan Irvanview	<ul style="list-style-type: none"> • Experience functionality or operability issues with IrfanSkiljan Irvanview on user's Library workstation
Workstation Software – Core - Java	<ul style="list-style-type: none"> • Experience functionality or operability issues with Java on user's Library workstation
Workstation Software – Core - Kronos WebTA	<ul style="list-style-type: none"> • Experience functionality or operability issues with Kronos WebTA on user's Library workstation
Workstation Software – Core - Mozilla Firefox	<ul style="list-style-type: none"> • Experience functionality or operability issues with Mozilla Firefox on user's Library workstation
Workstation Software – Core - Microsoft Internet Explorer	<ul style="list-style-type: none"> • Experience functionality or operability issues with Microsoft Internet Explorer on user's Library workstation
Workstation Software – Core - Microsoft Office	<ul style="list-style-type: none"> • Experience functionality or operability issues with Microsoft Office on user's Library workstation
Workstation Software – Core - Microsoft Outlook	<ul style="list-style-type: none"> • Experience functionality or operability issues with Microsoft Outlook on user's Library workstation
Workstation Software – Core - Microsoft Silverlight	<ul style="list-style-type: none"> • Experience functionality or operability issues with Microsoft Silverlight on user's Library workstation
Workstation Software – Core - Nitro Primo PDF	<ul style="list-style-type: none"> • Experience functionality or operability issues with Nitro Primo PDF on user's Library workstation
Workstation Software – Core - Oracle Java Access Bridge	<ul style="list-style-type: none"> • Experience functionality or operability issues with Oracle Java Access Bridge on user's Library workstation
Workstation Software – Core - Oracle Java JRE	<ul style="list-style-type: none"> • Experience functionality or operability issues with Oracle Java JRE on user's Library workstation

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Service Item		Classification	
Workstation Software - Core - RealNetworks RealPlayer		user's Library workstation	
		<ul style="list-style-type: none">• Experience functionality or operability issues with RealNetworks RealPlayer on user's Library workstation	

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APPENDIX C: BUSINESS APPLICATIONS (A-Z)

Business Application A - Z	Service Item
Business Applications A - G	Actuate
Business Applications A - G	Advanced Bindery Library Exchange (ABLE)
Business Applications A - G	America Works
Business Applications A - G	American Memory
Business Applications A - G	Automated Call Slips (ACS)
Business Applications A - G	Automated Hazard Abatement Program (AHAP)
Business Applications A - G	Automated ISSN Register (AIR)
Business Applications A - G	beta.Congress.gov
Business Applications A - G	BI Launch Pad
Business Applications A - G	BI Publisher
Business Applications A - G	Box Number Control System (BCS)
Business Applications A - G	Braille Audio Reading Download (BARD)
Business Applications A - G	Bulk Online Submission System (BOSS)
Business Applications A - G	Cancellation
Business Applications A - G	CAPTIVA
Business Applications A - G	CENS
Business Applications A - G	Central Contractor Registration Connector (CCRC)
Business Applications A - G	Central Print
Business Applications A - G	Chronicle America (ChronAm)

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Business Applications A - G	Civil Rights
Business Applications A - G	Congressional Geospatial Data System (CGDS)
Business Applications A - G	Congressional Record iPad App
Business Applications A - G	Congressional Relations Office (CRO) Tracking
Business Applications A - G	CONSER ISSN Request System
Business Applications A - G	Consolidated Staff Directory (CSD)
Business Applications A - G	Content Transfer Services (CTS)
Business Applications A - G	Control-M (AHE)
Business Applications A - G	Control-M (FHE)
Business Applications A - G	Copyright Imaging System (CIS)
Business Applications A - G	Copyright Office Documents System (CORDOCS)
Business Applications A - G	Copyright Office Electronic Registration & Deposit System (CORDS)
Business Applications A - G	Copyright Office Electronic Registration & Deposit System - Copyright Office Cataloging System (CORDS - CORCATS)
Business Applications A - G	Copyright Office In-Process System (COINS)
Business Applications A - G	Copyright: Integrated Library System (ILS)
Business Applications A - G	Copyright: Metasearch
Business Applications A - G	Copyright: Serena

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Business Applications A - G	Correspondence Control Management (CCM) Enterprise
Business Applications A - G	CRS.GOV
Business Applications A - G	Customer Information Management System (CIMS)
Business Applications A - G	DataPro - LD
Business Applications A - G	Delivery Management System (DMS)
Business Applications A - G	DigiBoard
Business Applications A - G	Document Log (DOCLOG)
Business Applications A - G	DPOEE Special Events Approval Workflow
Business Applications A - G	eCO Receipts
Business Applications A - G	Electronic Cataloging in Publication (eCIP)
Business Applications A - G	Electronic Copyright Office (eCO)
Business Applications A - G	Electronic Resource Management System (ERMS)
Business Applications A - G	eManagement
Business Applications A - G	EmpowHR
Business Applications A - G	Encoded Archival Descriptions (EAD) Finding Aids
Business Applications A - G	ESE Employee Staff & Location Tracker
Business Applications A - G	eSerials (eCO)
Business Applications A - G	Event Planning Suite (EPS)
Business Applications A - G	Everest

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Business Applications A - G	Facility and Asset Management Enterprise (FAME)
Business Applications A - G	Facility Automated Services Tracking System (FAST)
Business Applications A - G	Federal Library & Information Network (FEDLINK) Online Registration System (ORS)
Business Applications A - G	Federal Link Library (CAMS)
Business Applications A - G	FedInvest
Business Applications A - G	FedWire
Business Applications A - G	Financial Reporting System (FRS)
Business Applications A - G	Finding Aids
Business Applications A - G	FindIt!
Business Applications A - G	Flickr Pilot
Business Applications A - G	FootPrints (ITS)
Business Applications A - G	FRD Customer Relationship Management System (CRMS)
Business Applications A - G	GForge
Business Applications A - G	Global Banking Resources
Business Applications A - G	Global Events Calendar (GEC)
Business Applications A - G	Global Gateway (GG)
Business Applications H - M	Handle Server
Business Applications H - M	Hiring Management Enterprise Suite (HMES) (Monster)
Business Applications H - M	House Committee Streaming Video
Business Applications H - M	id.loc.gov
Business Applications H - M	Importer Tool
Business Applications H - M	Integrated Library System (ILS)

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Business Applications H - M	Inter-Library Loan (ILLiad)
Business Applications H - M	Integrated Library System (ILS) Help Desk
Business Applications H - M	Internal Control Program (ICP) Manager
Business Applications H - M	International Standard Music Number (ISMN)
Business Applications H - M	Inventory Control System (ICS)
Business Applications H - M	ISS Approval Workflow
Business Applications H - M	Jukebox
Business Applications H - M	Law Library Management Information System (LLMIS)
Business Applications H - M	LAW GOV
Business Applications H - M	LC Budget System
Business Applications H - M	Legislative Information System (LIS)
Business Applications H - M	Library Archival System (LAS)
Business Applications H - M	Library Services: Serena - Business Mashups
Business Applications H - M	Licensing Division System (LDS)
Business Applications H - M	Log-in/Log-out System (LILOs)
Business Applications H - M	MasterCard Expert Monitoring System (EMS)
Business Applications H - M	Medical Information Management System (MIMS)
Business Applications H - M	Merged Audio-Visual Information System (MAVIS)
Business Applications H - M	MetaProxy
Business Applications H - M	Microstation CAD System

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Business Applications H - M	Momentum Financial Management System (FMS)
Business Applications N - Z	National Finance Center Interface
Business Applications N - Z	National Library Catalog (NLC)
Business Applications N - Z	Office of Strategic Initiatives: Metasearch
Business Applications N - Z	OGC FileMaker
Business Applications N - Z	OGC Tracking
Business Applications N - Z	OIC Cases
Business Applications N - Z	Online Learning Center (OLC)
Business Applications N - Z	OOI Tracking
Business Applications N - Z	Open Archive Initiative
Business Applications N - Z	OSEPP Workflow
Business Applications N - Z	OTCnet
Business Applications N - Z	Packard Campus Workflow Application (PCWA)
Business Applications N - Z	Parking Program Management System (PPMS)
Business Applications N - Z	Pay.Gov
Business Applications N - Z	Payroll Analysis Module (PAM)
Business Applications N - Z	Perfect Tracker
Business Applications N - Z	Performing Arts Encyclopedia (PAE)
Business Applications N - Z	Permalink
Business Applications N - Z	Print Order Reporting & Tracking System (PORTS)
Business Applications N - Z	Prints & Photographs Online Catalog (PPOC)

CIO	SERVICE LEVEL AGREEMENT
Business Applications N - Z	Production & Information Control System (PICS)
Business Applications N - Z	Raiser's Edge
Business Applications N - Z	Reader Registration (RR)
Business Applications N - Z	REFERRALS
Business Applications N - Z	Remedy Platform
Business Applications N - Z	Remittance Express
Business Applications N - Z	SAP Business Objects/Crystal Reports
Business Applications N - Z	Serena Business Manager
Business Applications N - Z	Serial Discards
Business Applications N - Z	SkillPort
Business Applications N - Z	Strategic Management System (eLCplans)
Business Applications N - Z	Survival Guide
Business Applications N - Z	System Management Information Network II (SYMINT)
Business Applications N - Z	Teamsite
Business Applications N - Z	THOMAS
Business Applications N - Z	U.S. Capitol Police (USCP): Maximo
Business Applications N - Z	Veterans History Project
Business Applications N - Z	Veterans History Project (VHP) Online Data Entry System (DES)
Business Applications N - Z	Visitor Staffing & Scheduling Tool (VISTA) Tour Management System (TMS)
Business Applications N - Z	Waldseemuller Map Environmental Monitoring System (EMS)

C/O		SERVICE LEVEL AGREEMENT	
Business Applications N - Z	Web Archives		
Business Applications N - Z	Web Duplicate Material Exchange Program (WebDMEP)		
Business Applications N - Z	Web Time & Attendance (WebTA)		
Business Applications N - Z	Webcast		
Business Applications N - Z	Wiki		
Business Applications N - Z	WordPress		
Business Applications N - Z	World Digital Library		
Business Applications N - Z	xLIS		
Business Applications N - Z	Zebra		

The Commodity IT Services being provided by CIO does not include these services listed below:

[illegible]

Farraj-Feijoo, Ricardo

From: Yu, KanKan
Sent: Friday, July 24, 2015 11:07 AM
To: Daye, Stacian C.; Farraj-Feijoo, Ricardo; Scheffler, Elizabeth; Conklin, Judith; Banks, Al; Bucknor, Vanley; Hoppi's Billy; Balakrishnan, Bhaskaran; Wilson, Tina
Cc: Nelson, Carrie A.
Subject: Collective CTO Comments to SLA Document
Attachments: CTO Collective Comments on DRAFT SLA Doc.docx; SLA Sample.docx; Sample SLA 1.docx; Sample SLA 2.docx

All,

Per our discussion last Monday, attached are CTO's collective comments in the following DOCX attachment. In addition to the comments, we have also provided some sample content that we would like to be considered to be included in the baseline SLA document. These include:

- Clear service definition that includes a description and outline of services
- Excluded services, if any
- Points of contact if the business would like to request a service
- Performance Metrics and other KPIs
- Reporting
- Affected Customers

Please let us know if you have any questions regarding the documents attached to this e-mail.

Thanks,
KanKan

Enclosure:

- **CTO Collective Comments on Draft SLA Doc.docx** – Collective Comments from CTO
- **SLA Sample.docx** – Provides good examples on how metrics are reported and calculated
- **Sample SLA 1.docx and Sample SLA 2.docx** – Provide great service descriptions, contacts, and other information

CTO Collective Comments on DRAFT “Service Level Agreement (SLA) between the United States Copyright Office (COP) and The Chief Information Officer (CIO)”

General Comments:

- 1) Services are not clearly defined in document. While the document contains good information, it is not cogent and organized for the Business to understand what common IT services are provided across the enterprise. As the business utilizing shared IT services, we should be looking at menu of services where we can pick and choose what we would like to leverage today and possibly in the future. The “How that service is provided” should also be provided within the document – a “recipe” per se.

Analogy: We use the restaurant analogy. When you go to the restaurant, you see a menu – in this case, a service catalog – that informs you on what can be ordered, what you can expect to be on your plate, when it is going to be served (appetizer, entrée, post-meal dessert, etc). Once you place your order, the chef puts the meal together using recipes that lists ingredients, amounts to use, cook times etc.

For service catalogs (business and technical), the service needs to be defined overall, then detailed metrics need to be defined, targets for those metrics, how the metrics will be measured, and how metrics will be reported. For example, the document says “99% availability” but does not specify availability of what.

CTO would like to see other information as well:

- a. Clear service definition that includes a description and outline of services
 - b. Excluded services, if any
 - c. Points of contact if the Business would like to request a service
 - d. Performance Metrics and other KPIs
 - e. Affected Customers
 - f. Service Charges (if applicable)
- 2) In the draft Directive, it states that the baseline of services paid for by ITS will be whatever they provided in January 2015. Two big problems with this: 1. It will take quite a while to document what they are already providing at a detailed level, and 2) it doesn’t seem fair to start charging for additional services now when SUs can’t build that funding into their budgets until FY17 at the earliest (maybe FY18?).
 - 3) Does ITS currently have the tools and processes in place to make this happen efficiently and report out successes and failures in meeting SLAs? If not, CTO does not see how much value this will bring in the short term until a “to-be” state is established.

Detailed Comments

1) **Section 1.1 – “Overview of the CIO”**

Should this be the OCIO? Please make this clarification across the document where “CIO” is referenced

2) **Section 2.1 – Commodity IT Services**

- Each service needs to be defined overall, needs to have detailed service metrics, how each metric is measured and how each metric is reported. I.e., need specify the Availability of <what> and then it needs to be reported and tracked.
- This table looks more like a service catalog – which is where this information (and more) should be.

3) **Section 2.1 – Access Management**

How can access management only be “Normal business hours” when you are looking at 99% uptime for email, desktop computing, etc. Are they saying that issues with access don’t count during outages? This makes no sense. What happens in an emergency?

4) **Section 2.1 – “Availability” Column**

- Will an independent IV&V be done with a report out to determine if the SLA are being met?
- Are there monitoring systems and tools in place to determine if SLAs are being met?
- Missing key elements like the formulas used to calculate SLAs, etc.
- Who determines what LOC’s SLA baselines should be? For example, 99% availability. What is this based on: LOC’s current capacity or the needs of the SUs?
- As to the 99%, does this factor in normal maintenance windows (as specified later in section 3.0)? If so, those should be specified in the table. Also, 99% translates to 3.65 days a year – or almost 88 hours over the course of a year. If you factor in the planned outages 36 hours per month*12 months), you have closer to 21 or 22 days year – which is more like 94%. Not so great. Even factoring out the maintenance windows, 99% is still a little low in my opinion. It should be more like 3 or 4 nines (5 nines is the golden standard)
- Is it an outage if the access to the email is down, but the email servers are up? What does 99% mean for the wireless access? Is that uptime or coverage?
- Will a dashboard be provided to the SU heads on a regular basis that details the data supporting the whether the SLAs are obtained?

5) **Section 2.1 – “Availability” Column, “Normal Business Hours”**

What is “Normal Business Hours” defined as?

6) **Priority Matrix**

- “...from a Fulfilment Group or incident management team.” – Where are these defined?
- How were these priorities defined? We need to discuss the urgency or the priority classifications.

- We need to discuss who is involved in the VIP category
- 7) **Section 3.0, third bullet regarding suspension of maintenance activities**
- We can certainly agree to minimize activities during these times, but it is impossible and not feasible to totally stop work or plan around what amounts to an unpublished series of extended business services support outages throughout the year.
- 8) **Section 4**
- This doesn't touch on anything related to requesting or acquiring said business services and/or technical services and/or resources. It only appears to address incident response – but only in a general sense.
 - What are appropriate notification procedures? They aren't referenced or documented anywhere.
 - How will the service desk determine priority?
- 9) **Section 4.1**
Add the following bullets:
- Maintain and keep current all offered services;
 - Provide proper communication and notice of changes in services;
 - Monitor and track all SLAs and report out results.
- 10) **Section 4.2**
Add the following bullets:
- Notify the CIO Office of SU business changes that impact the relevance of SLAs.
- 11) **Appendix A – Normal Business Hours**
What about holidays? I would suggest referring to the LOC standard LCR on business hours instead of defining something separate here.
- 12) **Appendix A – PI**
Who gets to define what P1 – P6 should be? I would think these initial baselines would be established by a committee of representatives from each SU.
- 13) **Appendix B – Service Catalogue Attached**
I assume that there will be a process for accounting for new technology in this table.
- 14) **Appendix B – Classification**
This should be a list of metrics. Not sure what "Classification" is supposed to mean.\
- 15) **Appendix C**
Need business owner specified

2.2 Workstation Services

2.2.1 Windows 7, Apple OS

The Windows 7 Enterprise platforms, and the Apple platform, are offerings for desktop/laptop service, office automation, access to local and wide area networks, business applications, and access to the Internet. Full Local Area Network and Internet Access integration, including connectivity to email are included in this service offering.

Additional services included in Workstation Services are as follows:

- Provision of Full Local Area Network and Internet Access integration, including connectivity to email.
- Provision of Secure Virtual Private Network (VPN) support with full network access.
- Management of accounts.
- Storage, backup and archive of network files.
- Provision of Full Service platform support, including those platforms used in Telework such as Citrix service.
- Deployment of workstations and peripherals for use with Windows 7.
- Deployment of Workstation Peripheral Devices and Standard Move Support.
- Preparation of training room/conference room facilities.
- Provision of the Microsoft Office software suite. Deployment of other certified software is accomplished via automated methods or by delivery to the hosted distribution portal.
- Management of custom client software licensing and legacy software support.
- Test and deployment the most recent Original Equipment Manufacturer (OEM) released patches and updates for applications. Certification of hardware and software for use on the network.
- Change Release and Configuration Management Services for customer needs for all Windows Services platforms.
- Coordination and support of platforms related to full disaster recovery, and Continuity of Operations Planning (COOP).
- Maintain Security Compliance with current patches and upgrades.

- Virtual Desktop option included with the Workstation Service
– allocated to customers based on workstation count.

2.2.2 File Retention/Backup Rotation

CommVault is the emerging solution for end-user server and field office data protection tool operated by ITS in support of end-user infrastructure. CommVault will phase out existing tape backups as older servers are phased out and new infrastructure is deployed. This tool performs over the wire remote backups, compression and deduplication for server based data. The standard protection model supports up to 6 months of remote site backups with both large scale and file level recovery available. The default data file backup schedule and recovery objectives for authorized files is as follows for sites using the CommVault solution:

File Retention/Backup Rotation				
Location	Backup	Frequency	Primary Site Retention	Alternate Site Retention
Field Office Server (using Commvault)	Synthetic Full	Weekly	Up to three weeks	Primary Offsite – Six months Secondary Offsite – Six months
Field Office Server (using Commvault)	Incrementals	Daily	Up to three weeks	Primary Offsite – Six months Secondary Offsite – Six months
Field Office Server (using tapes)	Full	Weekly	Six weeks	Six weeks
Field Office Server (using tapes)	Incrementals	Daily	one week	none
Enterprise Data Center	Synthetic Full	Weekly	Six months	Primary Offsite – Six months
Enterprise Data Center	Incremental	Daily	Six months	Primary Offsite – Six months

The actual restore time is dependent on the final size of the recovered data and whether an over the wire recovery is practical or if drives must be restored remotely

and shipped to the customer site. A significant disaster recovery effort may require an estimated recovery time to align with these limitations.

2.2.3 Workstation Services Performance Measures

Base service levels are shown in the table below. Additionally, the following above base service level options are available:

Premier Services – A higher level of support service is available in the <city> and <city> large offices, Washington D.C. complex to meet the needs of executives or other priority customers.

Elevated Privileges – Workstation configurations with advanced access rights and administrative privileges are available with supervisory and agency purchasing contact permission.

Apple Workstation Service – ITS provides basic imaging of Apple Macintosh hardware and operating systems.

Measure	Base SLA (includes Elevated Privileges and Apple)	Performance Targets for Base SLA	Premier Service SLA
Wide Area Network Availability (See Network Services for details)	Availability of logical circuits between UTN node pairs (measured by Solar Winds)	99.5%	Same as Base
Internet Access (measured at USDA gateways) (See Network Services for details)	Availability of ENS + Internet Gateways (UTN) internet access for connected offices/end users. (measured by vendor reporting)	99.9%	Same as Base
New Accounts in 1 business day	Approved "Effective Date" on the SAAR form to closure of request Transactions complete \leq 1 business days (measured by Remedy)	95%	Same as Base
Separated End Users – Disable Accounts	Approved "Effective Date" on the SAAR form to closure of request Transactions complete \leq 1 business days and will remain as a Disabled Account for 14 business days (measured by Remedy)	95%	24 Hours (disable), 100%, of the time
Separated End Users – Delete Accounts	Approved "Effective Date" on the SAAR form to closure of request Transactions complete \geq 15 and \leq 20 business days or as requested on the SAAR Form (measured by Remedy)	95%	24 Hours (disable), 100%, of the time
Update End User Account	Completion of request after ITS is provided all required information. Transactions complete \leq 3 business days (measured by Remedy)	95%	Same as Base

Mean Time to Resolve Hardware and Software Incidents	Hardware Repairs resolved within 5 days from time of notification to OCIO/ITS (measured by Remedy)	70%	24 hours, 80% of the time
Hardware System Deployment	45 business days from notification to ITS or as separately agreed (measured by internal tracking) (Not applicable to large purchases)	95%	24 Hours, 80% of time (Deployment of government purchased iPads is supported by an "on-hand" pool of wireless iPads. iPads can be activated within 24 hours.)
Software Certification and Release	Certification and/or Approval of End User requests within 60 Business days.	90%	Same as Base
Client Supplemental Above Base Software Deployment	Deployment Date \leq 45 business days from notification to OCIO/ITS or as separately agreed to between the customer and OCIO/ITS in writing (measured by OCIO/ITS Remedy)	90%	24 Hours, 80% of time – Premier rate
Toll-Free National/Support Help Desk– ((Number of contacts/incidents in a month (1) properly resolved on the First Contact plus (2) contacts/incidents correctly routed according to the Routing Procedure) / total contacts in the month)	Report from Contractor's or Governments system. The Government or a designated third party may audit the data.	95% Averaged Monthly	Same as Base SLA

Toll-Free National/Support Help Desk–Speed to Answer Measured time between a caller making his/her final selection in the IVR and speaking to a support agent.	Report from Contractor's or Governments system.	45 Seconds Averaged Monthly	Same as Base SLA
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2.4 Mobility Devices

2.4.1 Mobility Tablets

Distinct from the "tablets" that are similar to laptops, "mobility tablets" are smaller, less functional than a full PC, but enhanced beyond the capabilities of a SmartPhone. They occupy a middle ground between phones and computers. These systems may utilize wireless and broadband connections and generally include services contracted with telecommunications carriers like a cell phone or smart phone, but have more user interaction and require more support than a phone. ITS support includes contract maintenance and oversight.

2.4.2 Wireless Data Plans for Non-Voice Devices

Support service can involve any effort to acquire, administer, support or deactivate mobile devices. This includes broadband and mobility tablets. Examples of support services would be ordering, receiving, activating and configuring devices, resolving operational problems, ordering replacement devices, applying operating system updates, maintaining associated inventory, ordering additional features, or requesting call detail records. Wireless devices offered are available to end user clients after authorization from designated customer group approvers.

Transmission service for wireless devices such as smartphones, is provided via the commercial wireless vendor that best serves in the customer's geography. Wireless accounts are maintained and administration is provided by ITS for the customer organization.

Email service for Smartphones is provided by ITS via systems whereby Outlook/Exchange Accounts are linked via a secure connection. This provides compact, mobile email service to customers, as well as voice and other features that a specific device may offer (Note: Some features may be restricted based on security or other concerns).

2.4.3 Mobility Devices Measures

Mobility Devices Services			
Service Type	Service Measure	Measurement	Performance Target
Mobility Tablets	Deployment Plan – Base Offering	Deployment Date ≤ 5 business days from vendor activation date or as separately agreed to between the customer and ITS in writing. (measured by Remedy)	95%
Mobility Tablets	Deployment Plan – Premier Offering (<u>Premier Service defined here</u>)	Deployment of government purchased iPads is supported by an “on-hand” pool of wireless iPads. iPads can be activated within 24 hours	80%
Wireless Device Service	Disconnect Time	ITS issues order to disconnect service ≤ 5 business days from notification to ITS or as separately agreed to between the customer and ITS in writing. Vendor disconnect time may take up to 60 days. (measured by Remedy)	95%
	Formula	Availability will be sourced from ITS tracking system	
	Measurement Interval	Measure Daily, Report Monthly	
	Measurement Tool	deployment plan, and Remedy	

Network

Service Description

Local Area Network (LAN)

We provide Local Area Network (LAN) infrastructure which delivers secure, high-speed data transfer among IT resources and systems within all individual LANs within HCHB.

Wide Area Network (WAN)

We provide Wide Area Network (WAN) infrastructure which connects individual internal and external LANs. This infrastructure delivers secure, high-speed, Internet Protocol (IP) data transfer among them and the Internet.

Service Specifications

Service Features

Local Area Network

- 10/100 Mbps connectivity.
- Power over Ethernet (PoE).
- High Availability (HA) and High Performance (HP).
- Reliable LAN connectivity with wired Ethernet.
- Internet Protocol (IP) communication among local devices.
- Compliant with FISMA standards.
- Fully integrated with OCIO IT security services.

Wide Area Network

- High-speed Internet access (Ethernet, ATM Link, Frame Relay Link, and Broadband).
- Throughput (64 Kbps to 1 Gbps).
- Core WAN and Headend.
- Customer Premises Equipment (CPE) – Optional
- High Availability (HA) – Optional
- Traffic prioritization through WAN Quality of Service (QoS) design – Optional
- Enterprise Services Access Point (ESAP) – Optional
- Reliable WAN connectivity with wired Ethernet.
- Internet Protocol (IP) communication among local devices.
- Fully integrated with General Services Administration's Managed Trusted Internet Protocol Services (MTIPS) and OCIO IT security services.
- Compliant with FISMA standards and the Federal Government Trusted Internet Connection (TIC) initiative.

Service Implementation

Local Area Network

- Perform LAN administration, including servicing Move, Add, and Change (MAC) requests.
- Perform fault management, network configuration management, network monitoring and utilization, availability and capacity management, and archival.
- Own and manage the entire network infrastructure life cycle, including servers and licenses.
- Manage the physical wiring between end devices and network equipment only on HCHBNet network.
- Apply updates, releases, patches, and fixes as appropriate or as recommended by OCIO management and vendors.

Wide Area Network

- Perform fault management, network configuration management, network monitoring and utilization, availability and capacity management, and archival.

- Perform WAN administration, including servicing Move, Add, and Change (MAC) requests.
- Perform remote site WAN management.
- Own and manage the entire network infrastructure life cycle, including servers and licenses.
- Apply updates, releases, patches, and fixes as appropriate or as recommended by OCIO management and vendors.

Technical Support

- Perform network assessment and design consultation based on your business and technical needs.
- Provide Continuity of Operations (COOP) support by rerouting the network traffic to the alternate site. Provide technical and troubleshooting support.

Contact us

<Insert Operating Hours>	
Telephone	
Email	
Building/Room	
Intranet	

Service Availability

This service is available: <Insert Service Hours>

Service Levels

Service Performance Metrics

Service Type	Service Measure	Measurement	Performance Target
LAN	Availability	LAN Availability = $\frac{\text{Total Time} - (\text{Total Outage})}{\text{Total Time}}$ Router + Switch availability will be measured by SolarWinds	99%
WAN Connectivity	Availability of logical circuits between UTM node pairs	Rolling average over the previous 12 months as reported by the network monitoring tool SolarWinds.	99.5%

How We Charge

Service Benefits

- This service is compliant with FISMA standards.
- You get a reliable WAN connectivity with wired Ethernet.
- We own the entire network infrastructure life cycle.
- Our network assessment and WAN design are based on your business and technical needs.

Customers

-

1 Help Desk

Service Description

Our customer service center is the single point of contact for all your IT service needs. Our agents track and route service requests and incident reports throughout the requests' and reports' life cycles.

Contact us to:

- Request a new IT service or change an existing service.
- Report an incident that disrupts your IT service.
- Diagnose and resolve your specific technical problems.
- Obtain general information on any of our IT Services.

We serve all of our customers by following the IT best practices and processes based on the Information Technology Infrastructure Library (ITIL) V3

Service Specifications

Service Desk Support

- Initiate a service ticket upon the receipt of an incident report or service request, and assign it a priority according to Incident Metrics table shown on this page.
- Log, track, manage, and resolve or escalate to the next level of support, all incident reports and service requests.
- Communicate to customers through online ticket updates, phone calls, and/or email notifications. The frequency of updates is based on the priority level of the ticket.
- Close the service ticket only after the customer agrees with the resolution.

VIP Support

- Provide escalated or scheduled service on all incident reports and service requests from VIP customers.

Note: A VIP customer is identified as a user whose duties are time-sensitive and critical and requires escalated support.

Information Dissemination

- Notify customers about IT service outages and other IT-related information via emails, broadcast messages, and postings on the intranet
- Publish and maintain Technical Point of Contact (TPOC) information on the intranet

Special Projects

Provide consulting and support on assessment, planning, and execution of special projects, e.g. upgrade of all computers in your organization.

Service Availability

7:30 AM to 6:00 PM, EST, Mon through Fri, except holidays.

Contact us

7:30 AM to 6:00 PM, EST, Mon through Fri, except holidays	
Telephone	
Email	
Building/Room	
Intranet	

Please contact us through one of these methods, depending on the nature of your service request or incident report:

Phone Support

Use this method to contact us for only these conditions:

- Emergency infrastructure incident which has CRITICAL impact on you.
- Failure of enterprise server, application, and/or single network, which has HIGH impact on you.
- Urgent or critical VIP request.

Voice Mail, Email, and Walk-In Support

Use this method to contact us for these conditions:

- Performance degradation (of a service) which does not have HIGH impact on you.
- Service requests or general questions.

After Hours On-Call Support

If you need help outside business hours, please call us and leave a message with your name, phone number, and a brief description of the incident. When prompted, please press #1 and hang up – an on-call agent will be paged to assist you.

Note: We provide this support strictly for emergency infrastructure incidents that have CRITICAL impact on you.

Service Levels

Our agents assign a priority to a ticket per one of the 5 priority levels defined below.

Priority Levels

Severity Level	Severity Definition	Priority Level
Severity 1	Emergency infrastructure incident which has CRITICAL impact on the customer.	Priority 1 (Highest)
Severity 2	Failure of enterprise server, application, and/or single network, which has HIGH impact on the customer.	Priority 2 (Medium)
Severity 3	Performance degradation (of a service) which does not have HIGH impact on the customer.	Priority 3 (Low)
Severity 4	Service requests, which are related to a desktop/server security need and have MINOR impact on the customer.	Priority 4 (Lower)
Severity 5	All other service requests and assigned projects which have LOW impact on the customer.	Priority 5 (Lowest)

Note:

Priority 1 and Priority 2 apply to unplanned outages only. Therefore, our agents do not assign these priority levels to IT service requests.

Ticket Initiation

Means of Contact	Target Time for Ticket Initiation	Target Percentage of Tickets Initiated on Time
Telephone	15 minutes or less	90%
Walk-In	15 minutes or less	90%
Email	2 hours or less	95%
Voice Mail	2 hours or less	95%

The Incident Metrics table below shows the target service level goals as soon as an agent initiates a ticket.

Incident Metrics

Priority Level	Target Frequency of Status Update	Target Resolution Time	Target Percentage of Calls Resolved on Time
Priority 1	1 hour	4 hours or less	95%
Priority 2	2 hours	1 business day or less	90%
Priority 3	1 business day	3 business days or less	85%
Priority 4	As agreed to with customer	3 business days or less	85%
Priority 5	As agreed to with customer	5 business days or less	85%

Customer Service Goals

- Provide friendly, courteous, and efficient service.
- Escalate promptly any inquiries or incident reports to appropriate ITSC agents.
- Provide escalated or scheduled service to VIP customers.
- Communicate effectively the information on changes and outages to normal IT services.
- Assess and understand evolving needs for new and existing services among users of IT services.
- Determine the level of user satisfaction with IT services via surveys and other means of outreach, and to publicize the findings and actions taken in response.

How We Charge

Costs are distributed among the Office and Departmental Management accounts on the basis of their share of FTE.

Service Benefits

- You don't need to navigate the OCIO organizational structure to get IT service support.
- You get a consistent IT service support and delivery.
- We have access to a database of incident trends and root-cause analyses, which help us to serve you better.
- Our help desk is designed to help you efficiently and effectively and to improve the resolution time.

Time and Cost Saving Tips

- When contacting us, please provide as much information about your incident report or service request as possible. This will help our agents to serve you better and quicker.

- Check our online Frequently Answered Questions (FAQ) page to get quick answers

Customer Responsibilities

- When requesting support to resolve a problem, provide at least your contact information and detailed description of the problem.
- ITSC agents may ask you to allow them the remote access to your system to help diagnose and resolve your problem.

Customers

-

Yu, KanKan

From: Balakrishnan, Bhaskaran
Sent: Friday, July 24, 2015 1:34 PM
To: Yu, KanKan
Subject: RE: Collective CTO Comments to SLA Document

Very thorough job ... most impressive. Perhaps OCIO ought to consider entering into an MOU with COP for the purposes of getting the SLA document written to industry specs!!!!

Have a great weekend.

B
Bhaskaran Balakrishnan
 Chief, R&D Congressional Research Service Group
 OCIO
 Library of Congress

From: Yu, KanKan
Sent: Friday, July 24, 2015 11:07
To: Daye, Stacian C.; Farraj-Feijoo, Ricardo; Scheffler, Elizabeth; Conklin, Judith; Banks, Al; Bucknor, Vanley; Hoppis, Billy; Balakrishnan, Bhaskaran; Wilson, Tina
Cc: Nelson, Carrie A.
Subject: Collective CTO Comments to SLA Document

All,

Per our discussion last Monday, attached are CTO's collective comments in the following DOCX attachment. In addition to the comments, we have also provided some sample content that we would like to be considered to be included in the baseline SLA document. These include:

- Clear service definition that includes a description and outline of services
- Excluded services, if any
- Points of contact if the business would like to request a service
- Performance Metrics and other KPIs
- Reporting
- Affected Customers

Please let us know if you have any questions regarding the documents attached to this e-mail.

Thanks,
 KanKan

Enclosure:

- **CTO Collective Comments on Draft SLA Doc.docx** – Collective Comments from CTO
- **SLA Sample.docx** – Provides good examples on how metrics are reported and calculated
- **Sample SLA 1.docx and Sample SLA 2.docx** – Provide great service descriptions, contacts, and other information

Ament, Douglas

From: Elmore, Nigel
Sent: Tuesday, August 25, 2015 11:26 AM
To: Ament, Douglas
Subject: FW: Collective CTO Comments to SLA Document
Attachments: CTO Collective Comments on DRAFT SLA Doc.docx; SLA Sample.docx; Sample SLA 1.docx; Sample SLA 2.docx

Yes. He sent them to Liz, who sent them to me. Should have been the other way around, but no biggy.

*Cheers,
 Nigel
 7-0059*

From: Scheffler, Elizabeth
Sent: Friday, July 24, 2015 3:24 PM
To: Elmore, Nigel
Subject: FW: Collective CTO Comments to SLA Document

From: Yu, KanKan
Sent: Friday, July 24, 2015 11:07 AM
To: Daye, Stacian C.; Farraj-Feijoo, Ricardo; Scheffler, Elizabeth; Conklin, Judith; Banks, Al; Bucknor, Vanley; Hoppis, Billy; Balakrishnan, Bhaskaran; Wilson, Tina
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CTO Collective Comments on DRAFT “Service Level Agreement (SLA) between the United States Copyright Office (COP) and The Chief Information Officer (CIO)”

General Comments:

- 1) Services are not clearly defined in document. While the document contains good information, it is not cogent and organized for the Business to understand what common IT services are provided across the enterprise. As the business utilizing shared IT services, we should be looking at menu of services where we can pick and choose what we would like to leverage today and possibly in the future. The “How that service is provided” should also be provided within the document – a “recipe” per se.

Analogy: We use the restaurant analogy. When you go to the restaurant, you see a menu – in this case, a service catalog – that informs you on what can be ordered, what you can expect to be on your plate, when it is going to be served (appetizer, entrée, post-meal dessert, etc). Once you place your order, the chef puts the meal together using recipes that lists ingredients, amounts to use, cook times etc.

For service catalogs (business and technical), the service needs to be defined overall, then detailed metrics need to be defined, targets for those metrics, how the metrics will be measured, and how metrics will be reported. For example, the document says “99% availability” but does not specify availability of what.

CTO would like to see other information as well:

- a. Clear service definition that includes a description and outline of services
 - b. Excluded services, if any
 - c. Points of contact if the Business would like to request a service
 - d. Performance Metrics and other KPIs
 - e. Affected Customers
 - f. Service Charges (if applicable)
- 2) In the draft Directive, it states that the baseline of services paid for by ITS will be whatever they provided in January 2015. Two big problems with this: 1. It will take quite a while to document what they are already providing at a detailed level, and 2) it doesn’t seem fair to start charging for additional services now when SUs can’t build that funding into their budgets until FY17 at the earliest (maybe FY18?).
 - 3) Does ITS currently have the tools and processes in place to make this happen efficiently and report out successes and failures in meeting SLAs? If not, CTO does not see how much value this will bring in the short term until a “to-be” state is established.

Detailed Comments

1) **Section 1.1 – “Overview of the CIO”**

Should this be the OCIO? Please make this clarification across the document where “CIO” is referenced

2) **Section 2.1 – Commodity IT Services**

- Each service needs to be defined overall, needs to have detailed service metrics, how each metric is measured and how each metric is reported. I.e., need specify the Availability of <what> and then it needs to be reported and tracked.
- This table looks more like a service catalog – which is where this information (and more) should be.

3) **Section 2.1 – Access Management**

How can access management only be “Normal business hours” when you are looking at 99% uptime for email, desktop computing, etc. Are they saying that issues with access don’t count during outages? This makes no sense. What happens in an emergency?

4) **Section 2.1 – “Availability” Column**

- Will an independent IV&V be done with a report out to determine if the SLA are being met?
- Are there monitoring systems and tools in place to determine if SLAs are being met?
- Missing key elements like the formulas used to calculate SLAs, etc.
- Who determines what LOC’s SLA baselines should be? For example, 99% availability. What is this based on: LOC’s current capacity or the needs of the SUs?
- As to the 99%, does this factor in normal maintenance windows (as specified later in section 3.0)? If so, those should be specified in the table. Also, 99% translates to 3.65 days a year – or almost 88 hours over the course of a year. If you factor in the planned outages 36 hours per month*12 months), you have closer to 21 or 22 days year – which is more like 94%. Not so great. Even factoring out the maintenance windows, 99% is still a little low in my opinion. It should be more like 3 or 4 nines (5 nines is the golden standard)
- Is it an outage if the access to the email is down, but the email servers are up? What does 99% mean for the wireless access? Is that uptime or coverage?
- Will a dashboard be provided to the SU heads on a regular basis that details the data supporting the whether the SLAs are obtained?

5) **Section 2.1 – “Availability” Column, “Normal Business Hours”**

What is “Normal Business Hours” defined as?

6) **Priority Matrix**

- “...from a Fulfilment Group or incident management team.” – Where are these defined?
- How were these priorities defined? We need to discuss the urgency or the priority classifications.

- We need to discuss who is involved in the VIP category
- 7) **Section 3.0, third bullet regarding suspension of maintenance activities**
- We can certainly agree to minimize activities during these times, but it is impossible and not feasible to totally stop work or plan around what amounts to an unpublished series of extended business services support outages throughout the year.
- 8) **Section 4**
- This doesn't touch on anything related to requesting or acquiring said business services and/or technical services and/or resources. It only appears to address incident response – but only in a general sense.
 - What are appropriate notification procedures? They aren't referenced or documented anywhere.
 - How will the service desk determine priority?
- 9) **Section 4.1**
- Add the following bullets:
- Maintain and keep current all offered services;
 - Provide proper communication and notice of changes in services;
 - Monitor and track all SLAs and report out results.
- 10) **Section 4.2**
- Add the following bullets:
- Notify the CIO Office of SU business changes that impact the relevance of SLAs.
- 11) **Appendix A – Normal Business Hours**
- What about holidays? I would suggest referring to the LOC standard LCR on business hours instead of defining something separate here.
- 12) **Appendix A – PI**
- Who gets to define what P1 – P6 should be? I would think these initial baselines would be established by a committee of representatives from each SU.
- 13) **Appendix B – Service Catalogue Attached**
- I assume that there will be a process for accounting for new technology in this table.
- 14) **Appendix B – Classification**
- This should be a list of metrics. Not sure what "Classification" is supposed to mean.
- 15) **Appendix C**
- Need business owner specified

2.2 Workstation Services

2.2.1 Windows 7, Apple OS

The Windows 7 Enterprise platforms, and the Apple platform, are offerings for desktop/laptop service, office automation, access to local and wide area networks, business applications, and access to the Internet. Full Local Area Network and Internet Access integration, including connectivity to email are included in this service offering.

Additional services included in Workstation Services are as follows:

- Provision of Full Local Area Network and Internet Access integration, including connectivity to email.
- Provision of Secure Virtual Private Network (VPN) support with full network access.
- Management of accounts.
- Storage, backup and archive of network files.
- Provision of Full Service platform support, including those platforms used in Telework such as Citrix service.
- Deployment of workstations and peripherals for use with Windows 7.
- Deployment of Workstation Peripheral Devices and Standard Move Support.
- Preparation of training room/conference room facilities.
- Provision of the Microsoft Office software suite. Deployment of other certified software is accomplished via automated methods or by delivery to the hosted distribution portal.
- Management of custom client software licensing and legacy software support.
- Test and deployment the most recent Original Equipment Manufacturer (OEM) released patches and updates for applications. Certification of hardware and software for use on the network.
- Change Release and Configuration Management Services for customer needs for all Windows Services platforms.
- Coordination and support of platforms related to full disaster recovery, and Continuity of Operations Planning (COOP).
- Maintain Security Compliance with current patches and upgrades.

- Virtual Desktop option included with the Workstation Service
– allocated to customers based on workstation count.

2.2.2 File Retention/Backup Rotation

CommVault is the emerging solution for end-user server and field office data protection tool operated by ITS in support of end-user infrastructure. CommVault will phase out existing tape backups as older servers are phased out and new infrastructure is deployed. This tool performs over the wire remote backups, compression and deduplication for server based data. The standard protection model supports up to 6 months of remote site backups with both large scale and file level recovery available. The default data file backup schedule and recovery objectives for authorized files is as follows for sites using the CommVault solution:

File Retention/Backup Rotation				
Location	Backup	Frequency	Primary Site Retention	Alternate Site Retention
Field Office Server (using Commvault)	Synthetic Full	Weekly	Up to three weeks	Primary Offsite – Six months Secondary Offsite – Six months
Field Office Server (using Commvault)	Incrementals	Daily	Up to three weeks	Primary Offsite – Six months Secondary Offsite – Six months
Field Office Server (using tapes)	Full	Weekly	Six weeks	Six weeks
Field Office Server (using tapes)	Incrementals	Daily	one week	none
Enterprise Data Center	Synthetic Full	Weekly	Six months	Primary Offsite – Six months
Enterprise Data Center	Incremental	Daily	Six months	Primary Offsite – Six months

The actual restore time is dependent on the final size of the recovered data and whether an over the wire recovery is practical or if drives must be restored remotely

and shipped to the customer site. A significant disaster recovery effort may require an estimated recovery time to align with these limitations.

2.2.3 Workstation Services Performance Measures

Base service levels are shown in the table below. Additionally, the following above base service level options are available:

Premier Services – A higher level of support service is available in the <city> and <city> large offices, Washington D.C. complex to meet the needs of executives or other priority customers.

Elevated Privileges – Workstation configurations with advanced access rights and administrative privileges are available with supervisory and agency purchasing contact permission.

Apple Workstation Service – ITS provides basic imaging of Apple Macintosh hardware and operating systems.

Measure	Base SLA (includes Elevated Privileges and Apple)	Performance Targets for Base SLA	Premier Service SLA
Wide Area Network Availability (See Network Services for details)	Availability of logical circuits between UTN node pairs (measured by Solar Winds)	99.5%	Same as Base
Internet Access (measured at USDA gateways) (See Network Services for details)	Availability of ENS + Internet Gateways (UTN) internet access for connected offices/end users. (measured by vendor reporting)	99.9%	Same as Base
New Accounts in 1 business day	Approved "Effective Date" on the SAAR form to closure of request Transactions complete \leq 1 business days (measured by Remedy)	95%	Same as Base
Separated End Users – Disable Accounts	Approved "Effective Date" on the SAAR form to closure of request Transactions complete \leq 1 business days and will remain as a Disabled Account for 14 business days (measured by Remedy)	95%	24 Hours (disable), 100%, of the time
Separated End Users – Delete Accounts	Approved "Effective Date" on the SAAR form to closure of request Transactions complete \geq 15 and \leq 20 business days or as requested on the SAAR Form (measured by Remedy)	95%	24 Hours (disable), 100%, of the time
Update End User Account	Completion of request after ITS is provided all required information. Transactions complete \leq 3 business days (measured by Remedy)	95%	Same as Base

Mean Time to Resolve Hardware and Software Incidents	Hardware Repairs resolved within 5 days from time of notification to OCIO/ITS (measured by Remedy)	70%	24 hours, 80% of the time
Hardware System Deployment	45 business days from notification to ITS or as separately agreed (measured by internal tracking) (Not applicable to large purchases)	95%	24 Hours, 80% of time (Deployment of government purchased iPads is supported by an "on-hand" pool of wireless iPads. iPads can be activated within 24 hours.)
Software Certification and Release	Certification and/or Approval of End User requests within 60 Business days.	90%	Same as Base
Client Supplemental Above Base Software Deployment	Deployment Date \leq 45 business days from notification to OCIO/ITS or as separately agreed to between the customer and OCIO/ITS in writing (measured by OCIO/ITS Remedy)	90%	24 Hours, 80% of time – Premier rate
Toll-Free National/Support Help Desk– ((Number of contacts/incidents in a month (1) properly resolved on the First Contact plus (2) contacts/incidents correctly routed according to the Routing Procedure) / total contacts in the month)	Report from Contractor's or Governments system. The Government or a designated third party may audit the data.	95% Averaged Monthly	Same as Base SLA

Toll-Free National/Support Help Desk–Speed to Answer Measured time between a caller making his/her final selection in the IVR and speaking to a support agent.	Report from Contractor's or Governments system.	45 Seconds Averaged Monthly	Same as Base SLA
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2.4 Mobility Devices

2.4.1 Mobility Tablets

Distinct from the "tablets" that are similar to laptops, "mobility tablets" are smaller, less functional than a full PC, but enhanced beyond the capabilities of a SmartPhone. They occupy a middle ground between phones and computers. These systems may utilize wireless and broadband connections and generally include services contracted with telecommunications carriers like a cell phone or smart phone, but have more user interaction and require more support than a phone. ITS support includes contract maintenance and oversight.

2.4.2 Wireless Data Plans for Non-Voice Devices

Support service can involve any effort to acquire, administer, support or deactivate mobile devices. This includes broadband and mobility tablets. Examples of support services would be ordering, receiving, activating and configuring devices, resolving operational problems, ordering replacement devices, applying operating system updates, maintaining associated inventory, ordering additional features, or requesting call detail records. Wireless devices offered are available to end user clients after authorization from designated customer group approvers.

Transmission service for wireless devices such as smartphones, is provided via the commercial wireless vendor that best serves in the customer's geography. Wireless accounts are maintained and administration is provided by ITS for the customer organization.

Email service for Smartphones is provided by ITS via systems whereby Outlook/Exchange Accounts are linked via a secure connection. This provides compact, mobile email service to customers, as well as voice and other features that a specific device may offer (Note: Some features may be restricted based on security or other concerns).

2.4.3 Mobility Devices Measures

Mobility Devices Services			
Service Type	Service Measure	Measurement	Performance Target
Mobility Tablets	Deployment Plan – Base Offering	Deployment Date \leq 5 business days from vendor activation date or as separately agreed to between the customer and ITS in writing. (measured by Remedy)	95%
Mobility Tablets	Deployment Plan – Premier Offering (<u>Premier Service defined here</u>)	Deployment of government purchased iPads is supported by an “on-hand” pool of wireless iPads. iPads can be activated within 24 hours	80%
Wireless Device Service	Disconnect Time	ITS issues order to disconnect service \leq 5 business days from notification to ITS or as separately agreed to between the customer and ITS in writing. Vendor disconnect time may take up to 60 days. (measured by Remedy)	95%
	Formula	Availability will be sourced from ITS tracking system	
	Measurement Interval	Measure Daily, Report Monthly	
	Measurement Tool	deployment plan, and Remedy	

Network

Service Description

Local Area Network (LAN)

We provide Local Area Network (LAN) infrastructure which delivers secure, high-speed data transfer among IT resources and systems within all individual LANs within HCHB.

Wide Area Network (WAN)

We provide Wide Area Network (WAN) infrastructure which connects individual internal and external LANs. This infrastructure delivers secure, high-speed, Internet Protocol (IP) data transfer among them and the Internet.

Service Specifications

Service Features

Local Area Network

- 10/100 Mbps connectivity.
- Power over Ethernet (PoE).
- High Availability (HA) and High Performance (HP).
- Reliable LAN connectivity with wired Ethernet.
- Internet Protocol (IP) communication among local devices.
- Compliant with FISMA standards.
- Fully integrated with OCIO IT security services.

Wide Area Network

- High-speed Internet access (Ethernet, ATM Link, Frame Relay Link, and Broadband).
- Throughput (64 Kbps to 1 Gbps).
- Core WAN and Headend.
- Customer Premises Equipment (CPE) – Optional
- High Availability (HA) – Optional
- Traffic prioritization through WAN Quality of Service (QoS) design – Optional
- Enterprise Services Access Point (ESAP) – Optional
- Reliable WAN connectivity with wired Ethernet.
- Internet Protocol (IP) communication among local devices.
- Fully integrated with General Services Administration's Managed Trusted Internet Protocol Services (MTIPS) and OCIO IT security services.
- Compliant with FISMA standards and the Federal Government Trusted Internet Connection (TIC) initiative.

Service Implementation

Local Area Network

- Perform LAN administration, including servicing Move, Add, and Change (MAC) requests.
- Perform fault management, network configuration management, network monitoring and utilization, availability and capacity management, and archival.
- Own and manage the entire network infrastructure life cycle, including servers and licenses.
- Manage the physical wiring between end devices and network equipment only on HCHBNet network.
- Apply updates, releases, patches, and fixes as appropriate or as recommended by OCIO management and vendors.

Wide Area Network

- Perform fault management, network configuration management, network monitoring and utilization, availability and capacity management, and archival.

- Perform WAN administration, including servicing Move, Add, and Change (MAC) requests.
- Perform remote site WAN management.
- Own and manage the entire network infrastructure life cycle, including servers and licenses.
- Apply updates, releases, patches, and fixes as appropriate or as recommended by OCIO management and vendors.

Technical Support

- Perform network assessment and design consultation based on your business and technical needs.
- Provide Continuity of Operations (COOP) support by rerouting the network traffic to the alternate site. Provide technical and troubleshooting support.

Contact us

<Insert Operating Hours>	
Telephone	
Email	
Building/Room	
Intranet	

Service Availability

This service is available: <Insert Service Hours>

Service Levels

Service Performance Metrics

Service Type	Service Measure	Measurement	Performance Target
LAN	Availability	LAN Availability = $\frac{[\text{Total Time} - (\text{Total Outage})]}{\text{Total Time}}$ Router +Switch availability will be measured by SolarWinds	99%
WAN Connectivity	Availability of logical circuits between UTN node pairs	Rolling average over the previous 12 months as reported by the network monitoring tool SolarWinds.	99.5%

How We Charge

Service Benefits

- This service is compliant with FISMA standards.
- You get a reliable WAN connectivity with wired Ethernet.
- We own the entire network infrastructure life cycle.
- Our network assessment and WAN design are based on your business and technical needs.

Customers

-

1 Help Desk

Service Description

Our customer service center is the single point of contact for all your IT service needs. Our agents track and route service requests and incident reports throughout the requests' and reports' life cycles.

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- Close the service ticket only after the customer agrees with the resolution.

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Note: A VIP customer is identified as a user whose duties is time-sensitive and critical and requires escalated support.

Information Dissemination

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- Publish and maintain Technical Point of Contact (TPOC) information on the intranet

Special Projects

Provide consulting and support on assessment, planning, and execution of special projects, e.g. upgrade of all computers in your organization.

Service Availability

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Contact us

7:30 AM to 6:00 PM, EST, Mon through Fri, except holidays	
Telephone	
Email	
Building/Room	
Intranet	

Please contact us through one of these methods, depending on the nature of your service request or incident report:

Phone Support

Use this method to contact us for only these conditions:

- Emergency infrastructure incident which has CRITICAL impact on you.
- Failure of enterprise server, application, and/or single network, which has HIGH impact on you.
- Urgent or critical VIP request.

Voice Mail, Email, and Walk-In Support

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- Performance degradation (of a service) which does not have HIGH impact on you.
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Priority Levels

Severity Level	Severity Definition	Priority Level
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Severity 3	Performance degradation (of a service) which does not have HIGH impact on the customer.	Priority 3 (Low)
Severity 4	Service requests, which are related to a desktop/server security need and have MINOR impact on the customer.	Priority 4 (Lower)
Severity 5	All other service requests and assigned projects which have LOW impact on the customer.	Priority 5 (Lowest)

Note:

Priority 1 and Priority 2 apply to unplanned outages only. Therefore, our agents do not assign these priority levels to IT service requests.

Ticket Initiation

Means of Contact	Target Time for Ticket Initiation	Target Percentage of Tickets Initiated on Time
Telephone	15 minutes or less	90%
Walk-In	15 minutes or less	90%
Email	2 hours or less	95%
Voice Mail	2 hours or less	95%

The Incident Metrics table below shows the target service level goals as soon as an agent initiates a ticket.

Incident Metrics

Priority Level	Target Frequency of Status Update	Target Resolution Time	Target Percentage of Calls Resolved on Time
Priority 1	1 hour	4 hours or less	95%
Priority 2	2 hours	1 business day or less	90%
Priority 3	1 business day	3 business days or less	85%
Priority 4	As agreed to with customer	3 business days or less	85%
Priority 5	As agreed to with customer	5 business days or less	85%

Customer Service Goals

- Provide friendly, courteous, and efficient service.
- Escalate promptly any inquiries or incident reports to appropriate ITCSC agents.
- Provide escalated or scheduled service to VIP customers.
- Communicate effectively the information on changes and outages to normal IT services.
- Assess and understand evolving needs for new and existing services among users of IT services.
- Determine the level of user satisfaction with IT services via surveys and other means of outreach, and to publicize the findings and actions taken in response.

How We Charge

Costs are distributed among the Office and Departmental Management accounts on the basis of their share of FTE.

Service Benefits

- You don't need to navigate the OCIO organizational structure to get IT service support.
- You get a consistent IT service support and delivery.
- We have access to a database of incident trends and root-cause analyses, which help us to serve you better.
- Our help desk is designed to help you efficiently and effectively and to improve the resolution time.

Time and Cost Saving Tips

- When contacting us, please provide as much information about your incident report or service request as possible. This will help our agents to serve you better and quicker.

- Check our online Frequently Answered Questions (FAQ) page to get quick answers

Customer Responsibilities

- When requesting support to resolve a problem, provide at least your contact information and detailed description of the problem.
- ITCSC agents may ask you to allow them the remote access to your system to help diagnose and resolve your problem.

Customers

-

Ament, Douglas

From: Najia, Dina
Sent: Thursday, September 10, 2015 9:33 AM
To: Farraj-Feijoo, Ricardo; Yu, KanKan; Daye, Stacian C.
Cc: Ament, Douglas
Subject: RE: CIO SLA Process Feedback (COP)

Hi Ricardo and KanKan

The meeting is still on. I will let Staci respond regarding an update on the documentation.

Thank you and see you later this morning.

Please note that Judith has moved offices and is now in LM 630.

From: Farraj-Feijoo, Ricardo
Sent: Thursday, September 10, 2015 9:03 AM
To: Yu, KanKan; Najia, Dina; Daye, Stacian C.
Cc: Ament, Douglas
Subject: RE: CIO SLA Process Feedback (COP)

Are we still meeting today? We have not received any feedback regarding our initial comments.

Thanks,

Ricardo

From: Yu, KanKan
Sent: Wednesday, September 09, 2015 12:25 PM
To: Najia, Dina; Daye, Stacian C.
Cc: Farraj-Feijoo, Ricardo; Ament, Douglas
Subject: RE: CIO SLA Process Feedback (COP)

Dina, Stacian:

Are there any documents associated with this meeting other than the comment document and samples we sent in July?

Thanks,
 KanKan

-----Original Appointment-----

From: Najia, Dina
Sent: Thursday, September 03, 2015 8:52 AM
To: Najia, Dina; Conklin, Judith; Banks, Al; Daye, Stacian C.; Farraj-Feijoo, Ricardo; Yu, KanKan
Cc: Ament, Douglas; David, Kimble A.
Subject: CIO SLA Process Feedback (COP)
When: Thursday, September 10, 2015 11:00 AM-11:30 AM (UTC-05:00) Eastern Time (US & Canada).
Where: Judith's (New) Office LM 630

COP Feedback to CIO on SLA Process

Ament, Douglas

From: Daye, Stacian C.
Sent: Thursday, September 10, 2015 9:42 AM
To: Farraj-Feijoo, Ricardo
Cc: Ament, Douglas; Banks, Al; Conklin, Judith; Najia, Dina; Yu, KanKan
Subject: RE: CIO SLA Process Feedback (COP)

Good Morning Ricardo,

We are still on schedule to meet today. All of your questions and comments will be reviewed and discussed during today's meeting. An updated SLA document will also be distributed at the meeting.

See you soon!

Thanks,
Staci



LIBRARY OF
 CONGRESS
Stacian C. Daye
Office of Strategic Initiatives/
Information Technology Services
Email: sdaye@loc.gov
Phone: 202-707-9788

From: Farraj-Feijoo, Ricardo
Sent: Thursday, September 10, 2015 9:03 AM
To: Yu, KanKan; Najia, Dina; Daye, Stacian C.
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Dina, Stacian:

300

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Cc: Ament, Douglas; David, Kimble A.

Subject: CIO SLA Process Feedback (COP)

When: Thursday, September 10, 2015 11:00 AM-11:30 AM (UTC-05:00) Eastern Time (US & Canada).

Where: Judith's (New) Office LM 630

COP Feedback to CIO on SLA Process

Ament, Douglas

From: Daye, Stacian C.
Sent: Thursday, September 10, 2015 6:57 PM
To: Farraj-Feijoo, Ricardo; Yu, KanKan
Cc: Ament, Douglas; Banks, Al; Conklin, Judith
Subject: RE: CIO SLA Process Feedback (COP)

All,

Attached are the documents that we reviewed in this morning's meeting.



DRAFT_
COP_Service_Le...



COP SLA
Feedback 9-10-1...

*Thanks,
Staci*



LIBRARY OF
CONGRESS
*Stacian C. Daye
Office of Strategic Initiatives/
Information Technology Services
Email: sdaye@loc.gov
Phone: 202-707-9788*

From: Daye, Stacian C.
Sent: Thursday, September 10, 2015 9:42 AM
To: Farraj-Feijoo, Ricardo
Cc: Ament, Douglas; Banks, Al; Conklin, Judith; Najia, Dina; Yu, KanKan
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Staci*

<< OLE Object: Picture (Device Independent Bitmap) >>
*Stacian C. Daye
Office of Strategic Initiatives/
Information Technology Services
Email: sdaye@loc.gov
Phone: 202-707-9788*

From: Farraj-Feijoo, Ricardo
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Where: Judith's (New) Office LM 630

COP Feedback to CIO on SLA Process

Service Level Agreement (SLA)

BETWEEN

THE UNITED STATES COPYRIGHT OFFICE (COP)

AND

THE CHIEF INFORMATION OFFICER (CIO)

For the period October 1, 2015 - September 30, 2016

DRAFT

SEPTEMBER 10, 2015

DOCUMENT INFORMATION AND APPROVALS

VERSION HISTORY

Version #	Date	Revised By	Reason for change
0.1	6/24/15	CIO	Initial draft
0.2	6/30/15	CIO	Revisions suggested by Interim CIO
0.3	7/9/15	CIO	Revisions suggested by Deputy CIO & SUs
0.4	7/14/15	CIO	Revisions suggested by Interim CIO, Deputy CIO, and SUs.
0.5	8/20/15	CIO	Revisions suggested by Interim CIO, Deputy CIO, based on questions and comments submitted by SU after their review of the Draft SLA document.
0.6	8/26/15	CIO	Revisions suggested by Deputy CIO.

DOCUMENT APPROVALS

Approver Name	Project Role	Signature/Electronic Approval	Date

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1.0 INTRODUCTION

1.1 Overview of CIO

The Chief Information Officer (CIO) ensures the effective delivery of information technology resources and services in support of the Library's mission, functions, and activities. The mission of CIO is to provide reliable and effective information systems and telecommunications services to the Library in support of its efforts to serve Congress and the nation, manage its collections, and plan, design, and implement systems which define the future digital library and information infrastructure.

1.2 SCOPE OF AGREEMENT

This is a Service Level Agreement (SLA) between CIO and the Library of Congress (LOC) United States Copyright Office (COP) for the period October 1, 2015 through September 30, 2016. The purpose of this SLA is to establish baseline support levels for commodity IT services that are provided by CIO to COP.

This SLA is binding upon CIO and COP. The CIO and COP may change this agreement when widespread service-affecting issues arise, new technologies develop, or requirements change. All modifications must be agreed upon by both the CIO and COP. CIO and COP agree to engage in good-faith efforts to resolve any problems which may arise.

As needed and appropriate Memoranda of Agreement (MOUs) will establish support levels for specialized CIO support not covered in this agreement.

1.3 ASSUMPTIONS

This agreement relies on certain operational assumptions. Should any of these assumptions change, then the CIO and COP will negotiate and agree upon any necessary adjustments to this agreement.

- ◆ Support levels established by this agreement will be provided.
- ◆ All IT-related mandates, such as regulatory or Congressional, have been accounted for in this SLA.

1.4 OUTSIDE CIO'S CONTROL

The services provided under this SLA may be temporarily suspended in part or in full by the CIO or other LOC or U.S. Government officials in the instance of unplanned, widespread, service-affecting issues. The services will be considered to be in "reduced service mode" in the instance of service-affecting issues which render the entire LOC enterprise unusable or severely degraded, these may include:

- ◆ Certain Department of Homeland Security (DHS) alerts;
- ◆ Severe weather or other natural occurrences like earthquakes, asteroid strikes, etc. which affects wide-area communication links, or utility services or prevents technicians from reaching their workplaces;
- ◆ A Government shutdown, declared by the Office of Personnel Management;

- ♦ Certain security threats and attacks; and,
- ♦ Scheduled life & safety testing.

Restoration of services covered under this SLA may be subject to factors outside of CIO's control. These may include vendor lead time (for purchases or vendor-provided repairs) and service provider lead time.

Unless specifically stated otherwise, OCIO will pay the cost of the commodity level service offerings pending availability of funds.

2.0 IT SERVICES

The services listed here are standard, meaning that these services are provided at no cost to COP.

As noted by the Federal Information Technology Shared Services Strategy¹, and the Federal IT Shared Services Implementation Guide², there are three general categories of shared services in the Federal Government: commodity IT, support, and mission services, as described below:

1. **Commodity IT Services** – As described in OMB Memorandum M-11-29,³ examples of commodity IT shared services opportunities include:
 - IT infrastructure (e.g., data centers, networks, workstations, and core software); and ,
 - Enterprise IT services (e.g., e-Mail, web infrastructure, collaboration tools, security, identity and access management). Commodity IT is asset-oriented, while enterprise IT services may, at times, be more utility-oriented (defined as purchasing by usage rate).
2. **Support Services** – Are defined by the capabilities that support common business functions performed by nearly all Federal organizations. These include functional areas such as budgeting, financial, human resources, asset, and property and acquisition management.
3. **Mission Services** – These are core purpose and functional capabilities of the Federal Government; such as disaster response, food safety, and national defense and employment services. Some Mission Services may have a single Federal organization focused on providing that service, while other mission services have multiple Federal

¹ Federal Information Technology Shared Services Strategy, Office of Management and Budget (OMB), Office of E-Government and Information Technology, May 2, 2012
http://www.whitehouse.gov/sites/default/files/omb/assets/egov_docs/shared_services_strategy.pdf

² Federal Information Technology Shared Services Implementation Guide, CIO Council, April 13, 2013
<https://cio.gov/wp-content/uploads/downloads/2013/04/CIOC-Federal-Shared-Services-Implementation-Guide.pdf>

³ Office of Management and Budget (OMB), M-11-29, Chief Information Officer Authorities, August 8, 2011

organizations providing parts of a service. This may be due to statute, budget or other unique capabilities an agency may have developed.

The scope of this SLA will cover Commodity IT Services.

2.1 COMMODITY IT SERVICES

The following tables contain the services within the scope of this SLA.

	Service Name	Service Description	Availability	Service Level Target (SLT)
1.	Access Management	The process responsible for allowing users to make use of IT services, data or other assets. Access management helps to protect the confidentiality, integrity and availability of assets by ensuring that only authorized users are able to access or modify them.	99% The Service Desk is closed on the two holidays, July 4th and December 25th.	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
2.	Audio & Video Teleconferencing (VTC)	Audio & Video Teleconferencing services provides technology and support to aid in the presentation and communication of relevant content and information to library staff, and special events during normal business hours.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
3.	Database Administration	Supports Library databases/database applications by developing architecture, establishing standards, monitoring, managing, and addressing security related issues to databases during normal business hours.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
4.	Email	Enterprise email supporting internal, employee to employee(s), or external, employee to customer, vendors, or business partners.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
5.	Desktop Computing	This service provides support services for workstations and connected peripherals. Including print services which enable all	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)

C/O

SERVICE LEVEL AGREEMENT

	Service Name	Service Description	Availability	Service Level Target (SLT)
		computers connected to the LOC network, to print to large multi-function devices and small desktop printers. CORE software is included. COP is financially responsible for Non-CORE software acquisitions and associated maintenance cost. COP is financially responsible for desktop and network printer acquisitions.		♦ Software Changes review and approval schedule is defined as P5 with in the Priority Matrix table.
6.	Hosting Services	This service provides support services internal to LOC environment comprising the following: <ul style="list-style-type: none"> ♦ Application ♦ Database ♦ Server ♦ Storage ♦ Infrastructure (e.g. CAPNET, DNS, VPN) 	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
7.	Information Security Management	This service provides the protection of the Library data and digital information and information structure assets against the risk of loss, misuse, disclosure or damage. Develops, implements, and manages the controls that ensure that the Library is managing these risks.	99%	
8.	Internet (ISP)	Services provide secure network connectivity to the Internet.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
9.	Messaging & Collaboration	This service provides tools and capabilities that allow users to communicate and collaborate. This includes systems such as: SharePoint, Instant Messaging, and GroupWise.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
10.	Mobile Devices	This service provides the mobile devices and capabilities that allow users to access Library technology resources. These are devices such as iPhones, Androids, and tablets. Only	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)

5 | Page

SERVICE LEVEL AGREEMENT				
CIO	Service Name	Service Description	Availability	Service Level Target (SLT)
		validated (meets security requirements and has undergone the assurance process defined by IT Security) devices will be supported in this service category. COP is financially responsible for the mobile devices and service plans. This service provides solutions that support the LOC telecommunications needs. This includes the following:		
11.	Telecommunications	<ul style="list-style-type: none"> ♦ Voice: Support for telephony tools, hardware, software, and voice data infrastructure ♦ Data: Support for tools, hardware, and infrastructure that supports data transmission. ♦ Facilities: Oversight support for the Library data centers, to include power, location, and cabling. 	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
12.	Telework/COOP - Laptops	This service provides support for an employee to perform work, during any part of regular, paid hours, at an approved alternate worksite (e.g. home or telework center). COP is financially responsible for laptop acquisitions.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
13.	Wireless	<p>Services provide secure network connectivity to the LOC wireless network for staff and the general public.</p> <ul style="list-style-type: none"> ♦ In Building Wireless: The cellular network within the confines of LOC buildings providing staff and visitors access to external cellular carrier networks, both data and voice. 	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)

C/O	SERVICE LEVEL AGREEMENT												
Service Name	Service Description	Availability	Service Level Target (SLT)										
<p>♦ Wi-Fi: The LOC wireless local area network offered to staff and visitors to provide data connectivity to the internet and access to collections. LOC Guest is the current LOC Wi-Fi.</p> <p>The Service Desk is designed to be the single point of contact for users to request additional services or report issues with existing services to IT.</p> <p><i>Copyright users contact the Copyright Help Desk. Issues which are beyond the scope of COP's responsibility are referred to the ITS Service Desk.</i></p> <p><i>(*Note: To the extent users contact the Service Desk, they will be supported)</i></p>													
<p>14. Service Desk (ITS Help Desk)</p> <p><i>*Note: See Appendix B for full listing of Service Desk Catalogue items.</i></p>		99%	♦ As defined by Service Desk Catalogue <i>(*Note: See Table Below - Priority Matrix)</i>										

Priority Matrix

Urgency	Impact					
	Enterprise	Congress	Public	Service Unit	Division/Office	VIP
Work Stoppage	P1	P1	P1	P1	P2	P2
Work Degradation	P1	P1	P1	P2	P2	P2
Service Request	P3	P3	P3	P3	P3	P3
Processes	P3	P3	P4	P4	P4	P4
Project Support Tasks	P5	P4	P5	P5	P5	P5
Non - Routine Tasks	P6	P6	P6	P6	P6	P6

Priority	Significance	Response Time	Resolution Time
P1	Critical	15 Minutes	4 Hours
P2	High	30 Minutes	1 Day
P3	Standard	4 Hour	5 Days
P4	Low	1 Day	10 Days
P5	Routine Process	1 Day	30 Days
P6	Non - Routine Tasks	1 Day	6 Months

Priority Matrix

Priority Matrix – The Priority Matrix establishes categories of urgency and acceptable response times for a given incident or Service Request.

Incident – An unplanned interruption to an IT service.

Priority – The measure of response expected from a Fulfillment Group or incident management team. Allowed response times are measured in minutes, hours and days.

- ♦ **P1** – During a P1 incident the CIO will, within 15 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and delivered to the Public Affairs Office for distribution. Within 4 working hours the CIO will resolve the incident.
- ♦ **P2** – During a P2 incident the CIO will, within 30 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and delivered to the Public Affairs Office for distribution. Within 8 working hours the CIO will resolve the incident.
 - VIP Service Requests will be assigned a P2 priority. Where a VIP request is added to a Fulfillment Group queue the request will be treated as first in queue and fulfilled with the least delay.
- ♦ **P3** – Routine requests will be assigned this priority level except for VIP requests. P3 requests will be placed in queue and fulfilled in turn (FIFO) by a Fulfillment Group(s). The Fulfillment Group(s) will respond to the request within 4 working hours and resolve the request within 5 days.
 - Use this priority where an incident has occurred which does not have an immediate operational impact or where a workaround is available to the user.
- ♦ **P4** – A low priority request that does not immediately impact the ability for a person or team to complete their assigned tasks. P4 requests will be acknowledged within one day and will be resolved within 10 business days.
- ♦ **P5** – Assign requests received from Project Teams to this category. The Project Team will establish the maximum time for fulfillment with the Fulfillment Group (s). The Fulfillment Group (s) will have 8 working hours to review the request and respond to the Project Team and 30 days to resolve the request. WCC Change Request Forms (CRF) for software and hardware will be assigned to this priority. All requests will be fulfilled by the requested or agreed upon date.
- ♦ **P6** – Non-routine tasks which have extended completion times will be assigned this priority.

Significance – A term used to identify the different priority levels as a measure of importance to the organization.

Response Time – How long a Fulfillment Group or incident management team has to review a ticket and begin a response.

Resolution Time – The measure of time an incident or Service Request can remain in a non-resolved status before an SLA Breach occurs.

Impact – Is a measure of the extent of perceived effect to systems or users and the potential damage to the organization before the incident or ticket is resolved.

- ♦ Enterprise – Where an incident or task affects a majority of Library users.
- ♦ Congress – Where an incident or task affects any congressional web site hosted on or in development by a LC system or team.
- ♦ Public – Where the system or service is commonly available to the general public.
- ♦ Service Unit – Where an affected system or service supports all or the greater part of a Service Unit.
- ♦ Division/Office – Where an affected system or service supports a building/floor/partial floor/division/office.
- ♦ VIP – Where the requestor or the requestor's assistant appears on the approved VIP list.
- ♦ Individual – Where the requestor is a single user.

Urgency – Is a means for categorizing how quickly an incident or ticket needs to be resolved.

- ♦ **Work Stoppage** – An interruption of IT services or access to one or more systems which results in one or more users not being able to perform routine assigned tasks which they are normally able to perform.
- ♦ **Work Degradation** – Where an IT system continues to be useable but performs below normal operating levels. A system may be slow to respond to user requests or part of a system may fail entirely with other parts continuing to function.
- ♦ **Service Request** – A request for a routine service has been submitted and will be routed to a Fulfillment Group for action. There are no users or systems experiencing an incident.
- ♦ **Processes** – For routine Service Requests which require multiple steps or an extended period to fulfill which do not directly affect a specific user. An example would include a change request for software to be approved which requires an extended amount of time to fulfill due to the number of steps and groups involved.
- ♦ **Project Support Tasks** – For Service Requests originating from a Project Team. To be used where a Project Team requires support from a Fulfillment Group outside the Project Team.
- ♦ **Non - Routine Tasks** – For long term tasks that are not Projects and are not routine tasks which may require 1 to 6 months to complete.

3.0 SYSTEMS MAINTENANCE & POLICY

The following events may impact on service availability:

- **Planned maintenance windows** – CIO is required to update and maintain the technical infrastructure on a regular basis per Maintenance Policy dated July 1, 2013. The agreed change windows for this work are:
 - ◆ Maintenance activity that is expected to take less than 4 hours will take place on the first and third Tuesday of each month beginning at 9:00pm Tuesday and ending by 3:00am on Wednesday;
 - ◆ Maintenance activity that is expected to take less than 12 hours to complete will take place on the second and fourth Sunday of each month beginning at 6:00am and ending by 6:00pm the same day;
 - ◆ Maintenance activities will be suspended for certain periods during which maintenance may disrupt special events that require uninterrupted service, (e.g., when Congressional activities are in progress, the National Book Festival, End of Fiscal Year activities September 30th). The CIO and COP will identify these events and coordinate maintenance accordingly; and
 - ◆ **Emergency system maintenance** – From time to time critical maintenance, such as urgent security patches may need to be performed within business hours which may impact on service availability. Staff will be notified and all attempts will be made to minimize the business impact of the changes.

Maintenance windows are not included in the availability column of the SLA.

4.0 ROLES AND RESPONSIBILITIES

4.1 THE CIO RESPONSIBILITIES

CIO has the following general responsibilities under this agreement.

- ◆ Conduct business in a courteous and professional manner with clients;
- ◆ Meet response times associated with the priority assigned to client issues;
- ◆ Ensure staff are appropriately trained and currency of training is maintained;
- ◆ Maintain adequate escalation procedures with the Priority Matrix table;
- ◆ Coordinate with COP on any maintenance that may impact the availability of COP systems even if it is during the maintenance windows;
- ◆ Log and track all client requests for service through the Service Desk System;
- ◆ Maintain and keep current all offered services;
- ◆ Provide proper communication and notice of changes in services; and
- ◆ Monitor and track all SLAs and report out results.

4.2 THE COP RESPONSIBILITIES

COP has the following general responsibilities under this agreement:

- ◆ Be familiar with the CIO policies and procedures for governing the acceptable use of information and communication technologies and adhere to same;
- ◆ Follow appropriate notification and escalation procedures;
- ◆ Maintain a service unit help desk that serves as the primary contact point for Copyright users. The help desk provides tier 1 and tier 2 IT support and only forwards to ITS Service Desk requests and incidents that involve infrastructure or issues that are beyond the scope of COP's responsibility.
- ◆ Determine appropriate support issue priority(P1-P6) in cooperation with the Service Desk;
- ◆ Be willing and available to provide critical information within 4 hours of logging a request with the Service Desk for any urgent matters.
- ◆ Notify the CIO Office of Copyright's business changes that impact the relevance of SLAs.

4.3 ESCALATION PATH

It is important to the success of the relationship between OCIO and COP that both parties understand the escalation chain in the event that there is an SLA Breach, or a reported Service Incident, and agreement cannot be reached as to the root cause or resolution. The following escalation path should be followed:

1. Office of the Chief Information Officer, Deputy Chief Information Officer (DCIO)
2. Office of the Chief Information Officer (OCIO), Chief Information Officer (CIO)
3. Chief Operating Officer (COO)

5.0 PERIODIC REVIEW PROCESS

This SLA is a mutually endorsed document and will be periodically reviewed and changed when the following events occur:

- ◆ The technological capability has been drastically reduced.
- ◆ Funds availability has been drastically changed.
- ◆ Unscheduled service disruptions have greatly altered information system processes.

This Service Level Agreement will be reviewed semi-annually in fiscal 2016 and annually thereafter to capture any expected changes in commodity IT service offerings and service levels. Contents of this document may be amended as required, provided mutual

agreement is obtained and communicated to all affected parties. The Document Owner will incorporate all subsequent revisions and obtain mutual agreements / approvals as required.

Document Owner:

Review Period:

Previous Review Date:

Next Review Date:

DRAFT

5.0 SIGNATURES

Title & Name <i>Service Provider and Document Owner</i>	Date
Title & Name <i>Customer</i>	Date
Title & Name	Date
Title & Name	Date

APPENDIX A: DEFINITIONS, ABBREVIATIONS, AND ACRONYMS

Term	Definition
Access Management	The process responsible for allowing users to make use of IT services, data or other assets. Access management helps to protect the confidentiality, integrity and availability of assets by ensuring that only authorized users are able to access or modify them.
Asset	Any resource or capability. The assets of a service provider include anything that could contribute to the delivery of a service. Assets can be one of the following types: management, organization, process, knowledge, people, information, applications, infrastructure or financial capital.
Audio & Video Teleconferencing (VTC)	Audio & Video Teleconferencing Conferencing services provides technology and support to aid in the presentation and communication of relevant content and information to Library staff, and special events during normal business hours.
Availability	Availability of an IT service is determined by reliability, maintainability, serviceability, performance and security. Availability is usually calculated as a percentage. This calculation is often based on agreed service time and downtime.
Commodity IT	Core services which include: IT infrastructure (e.g., data centers, networks, workstations, and software applications); and Enterprise IT services (e.g., e-Mail, web infrastructure, collaboration tools, security, identity and access management). Commodity IT is asset-oriented, while enterprise IT services may, at times, be more utility-oriented (defined as purchasing by usage rate).
Congress	Where an incident or task affects any congressional web site hosted on or in development by a LC system or team.
Database Administration	Supports Library databases/database applications by developing architecture, establishing standards, monitoring, managing, and addressing security related issues to databases during normal business hours.
Desktop Computing	This service provides support services for workstations and connected peripherals. Including print services which enable all computers connected to the LOC network, including staff laptops connected wirelessly, to print to large multi-function devices and small desktop printers.
DHS	Department of Homeland Security
Division/Office	Where an affected system or service supports a building/floor/partial floor/division/office.
Email	Enterprise email supporting internal, employee to employee(s), or external, employee to customer, vendors, or business partners.
Enhanced users	A small number of SU users, which have been permitted enhanced service due to their critical roles in the organization.
Enterprise	Where an incident or task affects a majority of Library users.
Fulfillment Group	The assigned team for Service Requests.

Term	Definition
Hosting Services	This service provides support services internal to LOC environment comprising of the following: <ul style="list-style-type: none"> • Application • Database • Server • Storage • Infrastructure
Impact	Impact is a measure of the extent of perceived effect to systems or users and the potential damage to the organization before the incident or ticket is resolved.
Individual	Where the requestor is a single user.
Information Security Management	This service provides the protection of the Library data and digital information and information structure assets against the risk of loss, misuse, disclosure or damage. Develops, implements, and manages the controls that ensure that the Library is managing these risks.
Internet (ISP)	Services provide secure network connectivity to the Internet.
LOC	Library of Congress
Messaging & Collaboration	This service provides tools and capabilities that allow users to communicate and collaborate. This includes systems such as (e.g., SharePoint, Instant Messaging and GroupWise).
Mission Services	Mission Services are core purpose and functional capabilities of the Federal Government; such as disaster response, food safety, and national defense and employment services. Some Mission Services may have a single Federal organization focused on providing that service, while other mission services have multiple Federal organizations providing parts of a service. This may be due to statute, budget or other unique capabilities an agency may have developed.
Mobile Devices	Devices such as iPhones, Androids, and tablets. These devices will be either validated (meets security requirements and has undergone the assurance process defined by IT Security) or non-validated (does not meet the security requirements and/or has not undergone the assurance process defined by IT Security).
MOU	Memorandum of Understanding - A MOU is a formal agreement between the CIO and a SU. MOUs shall be used by the CIO as follow-on documents to the baseline SLA for the purpose of defining new or expanded services which are either not defined within the baseline SLA or which need to be redefined.
Non - Routine Tasks	Consists of long term tasks that are not Projects and are not routing tasks which may require 1 to 6 months to complete.
Normal Business Hours	The time period when a particular IT service is available. Services will be provided between the hours of 7:00 a.m. and 5:00 p.m., Monday through Friday. (*Note: See Service Desk)
CIO	Chief Information Officer - CIO ensures the effective delivery of information technology resources and services in support of the Library's mission, functions, and activities.
Priority	The measure of response expected from a Fulfilment Group or incident

Term	Definition
	management team. Allowed response times are measured in minutes, hours and days.
P1	Priority 1- During a P1 incident the CIO will, within 15 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and delivered to the Public Affairs Office for distribution. Within 4 working hours the CIO will resolve the incident.
P2	During a P2 incident the CIO will, within 30 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and delivered to the Public Affairs Office for distribution. Within 8 working hours the CIO will resolve the incident. VIP Service Requests will be assigned a P2 priority. Where a VIP request is added to a Fulfillment Group queue the request will be treated as first in queue and fulfilled with the least delay.
P3	Routine requests will be assigned this priority level except for VIP requests. P3 requests will be placed in queue and fulfilled in turn (FIFO) by a Fulfillment Group(s). The Fulfillment Group(s) will respond to the request within 4 working hours and resolve the request within 5 days. Use this priority where an incident has occurred which does not have an immediate operational impact or where a workaround is available to the user.
P4	A low priority request that does not immediately impact the ability for a person or team to complete their assigned tasks. P4 requests will be acknowledged within one day and will be resolved within 10 business days.
P5	Assign requests received from Project Teams to this category. The Project Team will establish the maximum time for fulfillment with the Fulfillment Group (s). The Fulfillment Group (s) will have 8 working hours to review the request and respond to the Project Team and 30 days to resolve the request. WCC Change Request Forms (CRF) for software and hardware will be assigned to this priority. All requests will be fulfilled by the requested or agreed upon date.
P6	Non-routine tasks which have extended completion times will be assigned this priority.
Priority Matrix	The Priority Matrix establishes categories of urgency and acceptable response times for a given incident or Service Request.
Processes	Routine Service Requests which require multiple steps or an extended period to fulfill which do not directly affect a specific user. An example would include a change request for software to be approved which requires an extended amount of time to fulfill due to the number of steps and groups involved.
Project Support Tasks	Service Requests originating from a Project Team. To be used where a Project Team requires support from a Fulfillment Group outside the Project Team.
Public	Where the system or service is commonly available to the general

Term	Definition
	public.
Resolution Time	The measure of time an incident or Service Request can remain in a non-resolved status before an SLA Breach occurs.
Response Time	The time it takes for the Fulfillment Group or incident management team has to review a ticket and respond.
Service	A means of delivering value to customers by facilitating outcomes customers want to achieve without the ownership of specific costs and risks.
Service Desk	The single point of contact between the service provider and the users. The Help Desk will answer phone calls and email from our LC End Users, 24 hours a day, and 363 days a year, to open trouble tickets. The Help Desk is closed on the two holidays July 4th and Christmas. Work on tickets opened after hours and on weekends or holidays will begin at 7:00 AM the next business day.
Service Desk Catalogue	A structured document with information about all live IT services, including those available for deployment. The service catalogue is part of the service portfolio and contains information about two types of IT service: customer-facing services that are visible to the SUs; and supporting services required by the service provider to deliver customer-facing services.
Service Level Targets (SLT)	Service Level Targets (SLT) - SLTs are event-driven performance criteria which give context to measures and provide a mathematical basis to understand organizational performance.
Service Request	A request for a routine service has been submitted and will be routed to a Fulfillment Group for action. There are no users or systems experiencing an incident.
Service Unit	Where an affected system or service supports all or the greater part of a Service Unit.
Significance	A term used to identify the different priority levels as a measure of importance to the organization.
SLA	Service Level Agreement - The SLA specifies how specific services related to the operation and management of the commodity IT services will be measured. Service Level Agreement - An SLA is a document that establishes an agreement between an IT service provider and a client to describe IT services, specify the responsibilities of both parties, and document the expected service-level targets
SU	Service Unit
Support Services	Support services are defined by the capabilities that support common business functions performed by nearly all Federal organizations. These include functional areas such as budgeting, financial, human resources, asset, and property and acquisition management.
Telecommunications	This service provides solutions that support the LOC telecommunications needs. This includes the following: • Voice: Support for telephony tools, hardware, software, and voice

Term	Definition
	<p>data infrastructure</p> <ul style="list-style-type: none"> • Data: Support for tools, hardware, and infrastructure that supports data transmission. • Facilities: Oversight support for the Library data center, to include power, location, and cabling.
Telework/COOP - Laptops	This service provides support for an employee to perform work, during any part of regular, paid hours, at an approved alternate worksite (e.g. home or telework center).
Urgency	Is a means for categorizing how quickly an incident or ticket needs to be resolved.
VIP	Where the requestor or the requestor's assistant appears on the approved VIP list.
Wireless	<p>Services provide secure network connectivity to the LOC wireless network for staff and the general public.</p> <p>In Building Wireless: The cellular network within the confines of LOC buildings providing staff and visitors access to external cellular carrier networks, both data and voice.</p> <p>Wi-Fi: The LOC wireless local area network offered to staff and visitors to provide data connectivity to the internet. LOC Guest is the current LOC Wi-Fi.</p>
Work Degradation	Where an IT system continues to be useable but performs below normal operating levels. A system may be slow to respond to user requests or part of a system may fail entirely with other parts continuing to function.
Work Stoppage	An interruption of IT services or access to one or more systems which results in one or more users not being able to perform routine assigned tasks which they are normally able to perform.
Support Services	<p>Support services are defined by the capabilities that support common business functions performed by nearly all Federal organizations.</p> <p>These include functional areas such as budgeting, financial, human resources, asset, and property and acquisition management.</p>

APPENDIX B: COMMODITY SERVICE ITEMS (ENTERPRISE – WIDE)

Service Item
American Memory
Automated Call Slips (ACS)
BI Launch Pad
BI Publish
Braille Audio Reading Download (BARD)
CENS
Central Contractor Registration Connector (CCRC)
Chronicling America (ChronAm)
Congress.gov
Consolidated Staff Directory (CSD)
Content Transfer Services (CTS)
Control-M (AHE)
Copyright: Serena
Correspondence Control Management (CCM) Enterprise
CRS.GOV
Electronic Resource Management System (ERMS)
EmpowHR
Encoded Archival Descriptions (EAD) Finding Aids
Enterprise Architecture Collaborative Workspace (EACW)
Facility and Asset Management Enterprise (FAME)
Facility Automated Services Tracking System (FAST)
Financial Reporting System (FRS)
FindIt! (SFX)
FootPrints (ITS)

C/O

SERVICE LEVEL AGREEMENT

Service Item
Geospatial Hosting Environment (GHE)
GForge
Handle Server
HathiTrust – Shibboleth
Hiring Management Enterprise Suite (HMES)
id.loc.gov
Integrated Library System (ILS)
Internal Control Program (ICP) Manager
ISS Approval Workflow
Law.gov
LC Budget System
Legislative Information System (LIS)
MetalProxy
Momentum Financial Management System (FMS)
Online Learning Center (OLC)
Parking Program Management System (PPMS)
Payroll Analysis Module (PAM)
Permalink
Raiser's Edge
Remedy Platform
SAP Business Objects/Crystal Reports
Serena Business Manager
SkillPort
Strategic Management System (eLCplans)
Teamsite
THOMAS
Web Time & Attendance (WebTA)

Service Item	
Webcast	
Wiki	
WordPress	
xLIS	
YAZ	
Zebra	

APPENDIX C: BUSINESS APPLICATIONS (A-Z) (PLACEHOLDER)

REMOVED

The Commodity IT Services being provided by CIO does not include these services listed below:

[illegible]

APPENDIX E: SLA COMMUNICATION POINTS OF CONTACT (PLACEHOLDER)

The following points of contact for execution of the SLA are:

[illegible]

APPENDIX F: PRIORITY MATRIX ENHANCED USER LIST (PLACEHOLDER)

[illegible]

COP Service Level Agreement (SLA) Feedback				
Service Unit	Date Submitted	Submitted By	Question	Attachment
			<p>U.S. Copyright Office (COP)</p> <p>Services are not clearly defined in document. While the document contains good information, it is not cogent and organized for the business to understand what common IT services are provided across the enterprise. As the business utilizing shared IT services, we should be looking at menu of services where we can pick and choose what we would like to leverage today and possibly in the future. The menu that we are provided should be provided within the document as a "menu" per se.</p> <p>For service catalogs (business and technical), the service needs to be defined overall, then detailed metrics need to be defined, targets for those metrics, how the metrics will be measured, and how metrics will be reported. For example, the document says "99% availability" but does not specify availability of what.</p> <p>In the draft Directive, it states that the baseline of services paid for by ITS will be whatever they provided in January 2015. Two big problems with this: 1. It will take quite a while to document what they are already providing at a detailed level, and 2) it doesn't seem fair to start charging for additional services now when SUs can't build that funding into their budgets until FY17 at the earliest (maybe FY18).</p> <p>Does ITS currently have the tools and processes in place to make this happen efficiently and report our successes and failures in meeting SLA?</p> <p>If not, CTO does not see how much value this will bring in the short term until a "boiler plate" SLA is established.</p> <p>Page 1: Section 1.1 - "Overview of the CIO"</p> <p>Should this be the CIO's? Please make this clarification across the document where "CIO" is referenced.</p> <p>Page 2: Section 2.1 - "Commonality IT Services"</p> <p>What services need to be defined? Level of needs to have defined services need to be defined and assessed and how each metric is reported. I.e., need specify the Availability of "share" and then it needs to be reported and tracked.</p> <p>2. This table looks more like a service catalog - which is where this information (and more) should be.</p>	<p>8/25/15: The Service Catalogue will be updated. Appendix B now includes an updated list of Commodity Service items.</p> <p>8/17/15: Judith Condon to review and update Commodity Level IT service</p> <p>8/17/15: This will be fixed with Appendix and changes to the formatting of Appendix E.</p> <p>8/17/15: Per Judith, there will be no additional changes at this time another meeting will be scheduled with COP.</p> <p>9/9/15: Per Judith, this will be reported automatically through footnotes</p> <p>Per LEO's recommendation CIO was updated as CIO in the SLA document.</p> <p>To be discussed during SLA Follow-up meeting.</p>

COP Service Level Agreement (SLA) Feedback					
Update Date: 8/25/15 10:58 AM					
Service Unit	Date Submitted	Submitted By	Question	Attachment	Answer/Comment
			<p>U.S. Copyright Office (COP)</p> <p>Page 3: Section 21 - Commodity IT Services: Service Name: Access Management - Availability: How can access management only be "Normal business hours" when you are looking at 99% uptime for email, desktop computing, etc. Are they saying that issues with access don't occur during outages? This makes no sense. What happens in an emergency?</p>		8/25/15 Updated SLA document.

COP Service Level Agreement (SLA) Feedback <i>Update: 01/01/2015</i>				
Service Unit	Date Submitted	Submitted by	Question	Attachment
U.S. Copyright Office (COP)	7/24/2015	COP- CTO Collective Comments	<p>U.S. Copyright Office (COP)</p> <p>Page 3: Section 2.1 - Commodity IT Services: Availability</p> <p>Column</p> <ol style="list-style-type: none"> 1. Will an independent D&V be done with a report out to determine if the SLA are being met? 2. Are there monitoring systems and tools in place to determine if SLAs are being met? 3. Missing key elements like the formula used to calculate SLAs etc. 4. Will the metrics what LOC's SLA locations should be? For example, 99% availability. What is this based on, LOC's current capacity or the needs of the SLA? 5. As to the 91%, does this factor in normal maintenance windows (as specified later in section 3.0)? If so, those should be specified in the table. Also, 99% translates to 3.65 days a year - or almost 88 hours over the course of a year. If you factor in the planned outages 36 hours per month (12 months), you have closer to 21 or 22 days a year - which is more like 91%. Not so great. Even factoring out the maintenance windows, 99% is still a little low in my opinion. It should be more like 3 or 4 nines (3 nines is the golden standard). <p>Page 3: Section 2.1 - "Availability" Column: "Normal Business Hours"</p> <p>What is "Normal Business Hours" defined as?</p> <p>Page 6: Priority Matrix</p> <ol style="list-style-type: none"> 1. ... from a Fulfillment Group or incident management team." 2. Where are these defined? 3. How were these priorities defined? We need to discuss the urgency or the priority classifications. 4. We need to discuss who is involved in the VIP category. 	<p>6/25/15: The goal of the Footprints Improvement Team (FIT) is to get Footprints functional to be able to drive future metrics from a ticking point of view for monthly reporting. In the near future this will be expanded to include more in depth network monitoring with the ability to provide metrics on business applications and the infrastructure. However, it will require some time to mature into this process.</p> <p>See Appendix A: Definitions, Abbreviations, and Acronyms, page 13. The time period when a particular IT service is available. Services will be provided between the hours of 7:00 a.m. and 5:00 p.m., Monday through Friday. (*Note: See Service Desk)</p> <p>9/9/15: Definition for fulfillment group has been added. Fulfillment group is the assigned team for services to be completed. COP will provide their list of Enhanced users to be included in this category.</p>

COP Service Level Agreement (SLA) Feedback					
Update Date: 9/9/13 at 10:29 AM					
Service Unit	Date Submitted	Submitted By	Question	Attachment	Answer/Comment
			<p>U.S. Copyright Office (COP)</p> <p>Page 9, Section 3.0 – SYSTEMS MAINTENANCE & POLICY</p> <p>Third bullet regarding suspension of maintenance activities:</p> <ul style="list-style-type: none">• We can certainly agree to minimize activities during these times, but it is impossible and not feasible to totally stop work or plan around what amounts to an unpublished series of extended business services support outages throughout the year. <p>Excerpt bullet 1A:</p> <p>Maintenance activities will be suspended for certain periods during the maintenance window. The suspension of maintenance activities will be coordinated with the CIO and CCF. The CIO and CCF will identify these events and coordinate maintenance accordingly.</p>		9/9/13 Updated SLA document

COP Service Level Agreement (SLA) Feedback					
Update Date: 8/25/15 at 10:57 AM					
Service Unit	Date Submitted	Submitted By	Question	Attachment	Answer/Comment
			U.S. Copyright Office (COP)		
			Page 37: Appendix C: Business Applications (A-Z) Need business owner specified.		8/25/15: The Business Applications list will be updated.

Ament, Douglas

From: Yu, KanKan
Sent: Wednesday, September 16, 2015 5:16 PM
To: Daye, Stacian C.
Cc: Ament, Douglas; Banks, Al; Conklin, Judith; Farraj-Feijoo, Ricardo
Subject: RE: CIO SLA Process Feedback (COP)

Stacian,

As we agreed in our last discussion, below are our compiled comments after reviewing the updated SLA document and the response spreadsheet to our previous comments.

We saw that there were changes to the initial SLA documents based on our changes however the heart of our concerns have yet to be addressed in the new version. Please see below for comments. They also includes new comments after reviewing the recent iteration of the SLA document.

I will append the list of Enhanced Users and their titles in a separate e-mail.

Best,
 KanKan Yu

- Services are not clearly defined in the document. While the document contains good information, it is not cogent and organized for the Business to understand what common IT services are provided across the enterprise
- Details on how identified metrics will be calculated, measured, and reported
- Per OCIO's response, CTO looks forward to the meeting to discuss the our two (2) issues regarding the statement "...baseline of services paid for by ITS will be whatever they provided in January 2015"
- Under Desktop Computing, it states that "COP is financially responsible for Non-CORE software acquisitions and associated maintenance cost. COP is financially responsible for desktop and network printer acquisitions."
 - This is very different from the current model where a single desktop is provided to all LOC staff as well as network printers. In addition, this impacts MS Office and the MS O/S since these are not spelled out in the CORE software.
 - Do we need to specify the current SCCM functionality? Or do we also need to specify keeping software such as JAVA etc. up to date. Also how does this work with the pending LOC printer contract that presumably will cover this.
- Questions and comments regarding the Service Level Target table.
 - 99% appears to be the common availability metric for everything. In some cases this is too low a mark and in others too high. Wouldn't a better approach be to start out using the industry standard metrics?
 - Hosting Services and Messaging & Collaboration- What about availability during prime hours & after hours?
 - Information Security Management - Does this include virus protection, IDS, firewalls, SOC services, patching, etc..... These are usually not bundled together since SLAs differ. Also, these are not about availability, but instead execution of the services
 - ISP - Should the document start with Vendor Minimum SLAs? Often times the vendor may offer a higher SLA than 99%.
 - Where do laptops fall? They are not mentioned here or under desktop computing in this table.
- Backup and Recovery are not discussed in the SLA. This appears to be a major oversight. Other areas not mentioned include: Asset Management, Peripheral Devices, Remote Access, Change Management Support (Administrator & Engineering)
 - Peripheral Devices are not mentioned in the SLAs. This leaves out a significant number of other devices in use in COP. It would be beneficial to call these out to avoid confusion and misunderstanding.
- What about refresh cycles? Is this above and beyond the scope of the SLAs? See the standard examples included in the table.
 Example:

Type of Equipment	Refresh Cycle
Desktop & laptops	3 years
Servers/SANS/Network Equipment	5 years
PDAs, iphones	2 years
Printers/Scanners/Peripherals	5 years
Smaller Inexpensive Peripherals	Treated as disposables

- Are there SLA metrics surrounding customer satisfaction?
- we have additional questions regarding audits and IV&V performed. If there are disagreements of the results, what will be next steps for resolution?
- Will business unit escalation paths be documented in Section 4.3 as well?

From: Daye, Stacian C.
Sent: Thursday, September 10, 2015 6:57 PM
To: Farraj-Feijoo, Ricardo; Yu, KanKan
Cc: Ament, Douglas; Banks, Al; Conklin, Judith
Subject: RE: CIO SLA Process Feedback (COP)

All,

Attached are the documents that we reviewed in this morning's meeting.

<< File: DRAFT_ COP_Service_Level_Agreement_9-10-15 v1.doc >>

<< File: COP SLA Feedback 9-10-15.xlsx >>

Thanks,
Staci

<< OLE Object: Picture (Device Independent Bitmap) >>

Stacian C. Daye
Office of Strategic Initiatives/
Information Technology Services
Email: sdaye@loc.gov
Phone: 202-707-9788

From: Daye, Stacian C.
Sent: Thursday, September 10, 2015 9:42 AM
To: Farraj-Feijoo, Ricardo
Cc: Ament, Douglas; Banks, Al; Conklin, Judith; Najia, Dina; Yu, KanKan
Subject: RE: CIO SLA Process Feedback (COP)

Good Morning Ricardo,

We are still on schedule to meet today. All of your questions and comments will be reviewed and discussed during today's meeting. An updated SLA document will also be distributed at the meeting.

See you soon!

*Thanks,
Staci*

<< OLE Object: Picture (Device Independent Bitmap) >>
*Stacian C. Daye
Office of Strategic Initiatives/
Information Technology Services
Email: sdaye@loc.gov
Phone: 202-707-9788*

From: Farraj-Feijoo, Ricardo
Sent: Thursday, September 10, 2015 9:03 AM
To: Yu, KanKan; Najia, Dina; Daye, Stacian C.
Cc: Ament, Douglas
Subject: RE: CIO SLA Process Feedback (COP)

Are we still meeting today? We have not received any feedback regarding our initial comments.

Thanks,

Ricardo

From: Yu, KanKan
Sent: Wednesday, September 09, 2015 12:25 PM
To: Najia, Dina; Daye, Stacian C.
Cc: Farraj-Feijoo, Ricardo; Ament, Douglas
Subject: RE: CIO SLA Process Feedback (COP)

Dina, Stacian:

Are there any documents associated with this meeting other than the comment document and samples we sent in July?

Thanks,
KanKan

-----Original Appointment-----

From: Najia, Dina
Sent: Thursday, September 03, 2015 8:52 AM
To: Najia, Dina; Conklin, Judith; Banks, Al; Daye, Stacian C.; Farraj-Feijoo, Ricardo; Yu, KanKan
Cc: Ament, Douglas; David, Kimble A.
Subject: CIO SLA Process Feedback (COP)
When: Thursday, September 10, 2015 11:00 AM-11:30 AM (UTC-05:00) Eastern Time (US & Canada).
Where: Judith's (New) Office LM 630

COP Feedback to CIO on SLA Process

Yu, KanKan

From: Banks, Al
Sent: Tuesday, September 29, 2015 11:18 AM
To: Yu, KanKan; Farraj-Feijoo, Ricardo
Cc: Daye, Stacian C.; Wilson, Tina
Subject: Status of SLAs

Hi Ricardo, Kankan,

Just a quick update. The SLAs will be distributed to the ITSC members early this afternoon for final review and signature. The CIO is asking the ITSC members to sign on behalf of their respective service units. As agreed to at the last ITSC meeting the SLA document acknowledges the outstanding issues and OCIO's commitment to addressing them, and for the sake of Library meeting the Oct 1., GAO deadline, we will sign off on the SLAs now.

I happened to see Doug at coffee this morning and updated him on the above status.

Please let me know if you have any questions I can answer. Thanks again for your help with this important goal for the LC.

Al
79562

Ament, Douglas

From: Elmore, Nigel
Sent: Tuesday, September 29, 2015 1:28 PM
To: Ament, Douglas
Cc: Barton, Bud; Conklin, Judith; Banks, Al
Subject: SLA for COP for signature
Attachments: COP_Service_Level_Agreement_9-29-2015_Final.doc

Doug:

Attached please find the Service Level Agreement (SLA) between the Office of the CIO and the Copyright Office.

Please print the document, then sign and date on the signature page (Section 6.0, page 14). Afterwards, please email Nigel Elmore [nelm@loc.gov] that you have signed the SLA, and then deliver the physical signed copy to Cynthia Henthorn in LM-637 [cyhe@loc.gov; 7-1934].

We need the signed documents returned by Wednesday, September 30, 2015, to meet the GAO implementation deadline.

As was stated in the September ITSC meeting and as Judith Conklin (acting DCIO) has explained to each of you individually, OCIO realizes some service units have additional concerns, all of which OCIO plans to address as soon as possible after the September 30th deadline.

We appreciate your support and patience with this effort.

Bernard Barton, Jr., CIO

Service Level Agreement (SLA)

BETWEEN

THE UNITED STATES COPYRIGHT OFFICE (COP)

AND

THE CHIEF INFORMATION OFFICER (CIO)

For the period October 1, 2015 – September 30, 2016

DOCUMENT INFORMATION AND APPROVALS

VERSION HISTORY			
Version #	Date	Revised By	Reason for change
0.1	6/24/15	CIO	Initial draft
0.2	6/30/15	CIO	Revisions suggested by Interim CIO
0.3	7/9/15	CIO	Revisions suggested by Deputy CIO & SUs
0.4	7/14/15	CIO	Revisions suggested by Interim CIO, Deputy CIO, and SUs.
0.5	8/20/15	CIO	Revisions suggested by Interim CIO, Deputy CIO, based on questions and comments submitted by SU after their review of the Draft SLA document.
0.6	8/26/15	CIO	Revisions suggested by Deputy CIO.
0.7	9/28/15	CIO	Revisions suggested by Deputy CIO & SUs.
1.0	9/28/15	CIO	Approved

DOCUMENT APPROVALS			
Approver Name	Project Role	Signature/Electronic Approval	Date
Bernard Barton Jr.	Project Sponsor	Approved	8/28/15
Judith Conklin	Project Sponsor	Approved	8/28/15
Al Banks	OCIO Responsible Manager	Approved	8/28/15

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1.0 INTRODUCTION

1.1 Overview of CIO

The Chief Information Officer (CIO) ensures the effective delivery of information technology resources and services in support of the Library's mission, functions, and activities. The mission of CIO is to provide reliable and effective information systems and telecommunications services to the Library in support of its efforts to serve Congress and the nation, manage and provide access to its collections, and plan, design, and implement systems that define the future digital library and information infrastructure.

1.2 SCOPE OF AGREEMENT

This is a Service Level Agreement (SLA) between CIO and the Library of Congress (LOC) United States Copyright Office (COP) for the period October 1, 2015 through September 30, 2016. The purpose of this SLA is to establish baseline support levels for Commodity IT services that are provided by CIO to COP.

This SLA is binding upon CIO and COP. The CIO and COP may change this agreement when widespread service-affecting issues arise, new technologies develop, or requirements change. All modifications must be agreed upon by both the CIO and COP. The CIO and COP agree to engage in good-faith efforts to resolve any problems which may arise.

As needed and appropriate Memoranda of Agreement (MOUs) will establish support levels for specialized CIO support not covered in this agreement.

Note: In the interest of time, and the approaching September 30th deadline, the Acting Deputy CIO and the SLA Project Team has requested that the SUs let the SLA document go forward and OCIO agreed to address all of the SUs concerns as soon as possible, after the September 30th deadline.

1.3 ASSUMPTIONS

This agreement relies on certain operational assumptions. Should any of these assumptions change, then the CIO and COP will negotiate and agree upon any necessary adjustments to this agreement.

- ◆ Support levels established by this agreement will be provided.
- ◆ All IT-related mandates, such as regulatory or Congressional, have been accounted for in this SLA.

1.4 OUTSIDE CIO'S CONTROL

The services provided under this SLA may be temporarily suspended in part or in full by the CIO or other LOC or U.S. Government officials in the instance of unplanned, widespread, service-affecting issues. The services will be considered to be in "reduced service mode" in the instance of service-affecting issues which render the entire LOC enterprise unusable or severely degraded, these may include:

- ◆ Certain Department of Homeland Security (DHS) alerts;
- ◆ Severe weather or other natural occurrences like earthquakes, asteroid strikes, etc. which affect wide-area communication links, or utility services or prevent technicians from reaching their workplaces;
- ◆ A Government shutdown, declared by the Office of Personnel Management;
- ◆ Certain security threats and attacks; and,
- ◆ Scheduled life & safety testing.

Restoration of services covered under this SLA may be subject to factors outside of CIO's control. These may include vendor lead time (for purchases or vendor-provided repairs) and service provider lead time.

Unless specifically stated otherwise, OCIO will pay the cost of the commodity level service offerings pending availability of funds.

2.0 IT SERVICES

The services listed here are standard, meaning that these services are provided at no cost to COP.

As noted by the Federal Information Technology Shared Services Strategy¹, and the Federal IT Shared Services Implementation Guide², there are three general categories of shared services in the Federal Government: commodity IT, support, and mission services, as described below:

1. **Commodity IT Services** – As described in OMB Memorandum M-11-29,³ examples of commodity IT shared services opportunities include:
 - IT infrastructure (e.g., data centers, networks, workstations, and core software); and ,
 - Enterprise IT services (e.g., e-Mail, web infrastructure, collaboration tools, security, identity and access management). Commodity IT is asset-oriented, while enterprise IT services may, at times, be more utility-oriented (defined as purchasing by usage rate).
2. **Support Services** – Are defined by the capabilities that support common business functions performed by nearly all Federal organizations. These include functional areas such as budgeting, financial, human resources, asset, property, and acquisition management.
3. **Mission Services** – These are core purpose and functional capabilities of the Federal Government; such as disaster response, food safety, and national defense and employment services. Some Mission Services may have a single Federal organization focused on providing that service, while other mission services have multiple Federal organizations providing parts of a service. This may be due to statute, budget or other unique capabilities an agency may have developed.

The scope of this SLA will cover Commodity IT Services.

¹ Federal Information Technology Shared Services Strategy, Office of Management and Budget (OMB), Office of E-Government and Information Technology, May 2, 2012

http://www.whitehouse.gov/sites/default/files/omb/assets/egov_docs/shared_services_strategy.pdf

² Federal Information Technology Shared Services Implementation Guide, CIO Council, April 13, 2013

<https://cio.gov/wp-content/uploads/downloads/2013/04/CIO-C-Federal-Shared-Services-Implementation-Guide.pdf>

³ Office of Management and Budget (OMB), M-11-29, Chief Information Officer Authorities, August 8, 2011

C/O

SERVICE LEVEL AGREEMENT

2.1 COMMODITY IT SERVICES

The following tables contain the services within the scope of this SLA.

	Service Name	Service Description	Availability	Service Level Target (SLT)
1.	Access Management	The process responsible for allowing users to make use of IT services, data or other assets. Access management helps to protect the confidentiality, integrity and availability of assets by ensuring that only authorized users are able to access or modify them.	99% The Service Desk is closed on the two holidays, July 4th and December 25th.	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
2.	Audio & Video Teleconferencing (VTC)	Audio & Video Teleconferencing services provides technology and support to aid in the presentation and communication of relevant content and information to Library staff, and special events.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
3.	Database Administration	Supports Library databases/database applications by developing architecture, establishing standards, monitoring, managing, and addressing security related issues to databases.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
4.	Email	Enterprise email supporting internal, employee to employee(s), or external, employee to customer, vendors, or business partners.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
5.	Desktop Computing	This service provides support services for workstations and connected peripherals. Including print services which enable all computers connected to the LOC network, to print to large multi-function devices and small desktop printers. CORE software is included. COP is financially responsible for Non-CORE software	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix) ♦ Software Changes review and approval schedule is defined as P5 with in the Priority Matrix table.

C/O SERVICE LEVEL AGREEMENT				
	Service Name	Service Description	Availability	Service Level Target (SLT)
		acquisitions and associated maintenance cost. COP is financially responsible for desktop and network printer acquisitions.		
6.	Hosting Services	<p>This service provides support services internal to LOC environment comprising the following:</p> <ul style="list-style-type: none"> ◆ Application ◆ Database ◆ Server ◆ Storage ◆ Infrastructure (e.g. CAPNET, DNS, VPN) 	99%	◆ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
7.	Information Security Management	<p>This service provides the protection of the Library data and digital information and information structure assets against the risk of loss, misuse, disclosure or damage. Develops, implements, and manages the controls that ensure that the Library is managing these risks.</p>	99%	As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
8.	Internet (ISP)	Services provide secure network connectivity to the Internet.	99%	◆ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
9.	Messaging & Collaboration	<p>This service provides tools and capabilities that allow users to communicate and collaborate. This includes systems such as: SharePoint, Instant Messaging, and GroupWise.</p>	99%	◆ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
10.	Mobile Devices	<p>This service provides the mobile devices and capabilities that allow users to access Library technology resources. These are devices such as iPhones, Androids, and tablets. Only validated (meets security requirements and has undergone the assurance process defined by IT Security) devices will be supported in this service category.</p>	99%	◆ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)

SERVICE LEVEL AGREEMENT				
CIO	Service Name	Service Description	Availability	Service Level Target (SLT)
		COP is financially responsible for the mobile devices and service plans.		
11.	Telecommunications	<p>This service provides solutions that support the LOC telecommunications needs. This includes the following:</p> <ul style="list-style-type: none"> ♦ Voice: Support for telephony tools, hardware, software, and voice data infrastructure ♦ Data: Support for tools, hardware, and infrastructure that supports data transmission. ♦ Facilities: Oversight support for the Library data centers, to include power, location, and cabling. 	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
12.	Telework/COOP - Laptops	<p>This service provides support for an employee to perform work, during any part of regular, paid hours, at an approved alternate worksite (e.g. home or telework center). COP is financially responsible for laptop acquisitions.</p>	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
13.	Wireless	<p>Services provide secure network connectivity to the LOC wireless network for staff and the general public.</p> <ul style="list-style-type: none"> ♦ In Building Wireless: The cellular network within the confines of LOC buildings providing staff and visitors access to external cellular carrier networks, both data and voice. ♦ Wi-Fi: The LOC wireless local area network offered to staff and visitors to provide data connectivity to the 	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)

C/O	SERVICE LEVEL AGREEMENT			
Service Name	Service Description	Availability	Service Level Target (SLT)	
14. Service Desk (ITS Help Desk)	<p>internet and access to collections. LOC Guest is the current LOC Wi-Fi.</p> <p>The Service Desk is designed to be the single point of contact for users to request additional services or report issues with existing services to IT.</p> <p><i>Copyright users contact the Copyright Help Desk. Issues which are beyond the scope of COP's responsibility are referred to the ITS Service Desk</i></p> <p><i>(*Note: To the extent users contact the Service Desk, they will be supported)</i></p>	<p>99%</p> <p>The Service Desk is closed on the two holidays, July 4th and December 25th.</p>	<p>♦ As defined by Service Desk Catalogue</p> <p><i>(*Note: See Table Below - Priority Matrix)</i></p>	
15. Workstation Configuration Change management	<p>Management of workstation applications to ensure a secure and functional workstation environment and deployment to staff and public workstations.</p>	30 days	<p>♦ Processing of new and changed workstation applications within 2 weeks. Deployment to relevant workstations must be accomplished seamlessly, as applications are approved.</p>	

Priority Matrix

	Impact					
	Enterprise	Congress	Public	Service Unit	Division/Office	Enhanced User
Urgency	P1	P1	P1	P1	P2	P2
	P1	P1	P1	P2	P2	P2
	P3	P3	P3	P3	P3	P2
	P3	P3	P4	P4	P4	P4
	P5	P4	P5	P5	P5	P5
	P6	P6	P6	P6	P6	P6
Work Stoppage						
Work Degradation						
Service Request						
Processes						
Project Support Tasks						
Non - Routine Tasks						

Priority	Significance	Response Time	Resolution Time
P1	Critical	15 Minutes	4 Hours
P2	High	30 Minutes	1 Day
P3	Standard	4 Hour	5 Days
P4	Low	1 Day	10 Days
P5	Routine Process	1 Day	30 Days
P6	Non - Routine Tasks	1 Day	6 Months

Priority Matrix

Priority Matrix – The Priority Matrix establishes categories of urgency and acceptable response times for a given incident or Service Request.

Incident – An unplanned interruption to an IT service.

Priority – The measure of response expected from a Fulfillment Group or incident management team. Allowed response times are measured in minutes, hours and days.

- ♦ **P1** – During a P1 incident the CIO will, within 15 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and delivered to the Public Affairs Office for distribution. Within 4 working hours the CIO will resolve the incident.
- ♦ **P2** – During a P2 incident the CIO will, within 30 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and delivered to the Public Affairs Office for distribution. Within 8 working hours the CIO will resolve the incident.
 - Enhanced User Requests will be assigned a P2 priority. Where an Enhanced User request is added to a Fulfillment Group queue the request will be treated as first in queue and fulfilled with the least delay.
- ♦ **P3** – Routine requests will be assigned this priority level except for Enhanced User requests. P3 requests will be placed in queue and fulfilled in turn (FIFO) by a Fulfillment Group(s). The Fulfillment Group(s) will respond to the request within 4 working hours and resolve the request within 5 days.
 - Use this priority where an incident has occurred which does not have an immediate operational impact or where a workaround is available to the user.
- ♦ **P4** – A low priority request that does not immediately impact the ability for a person or team to complete their assigned tasks. P4 requests will be acknowledged within one day and will be resolved within 10 business days.
- ♦ **P5** – Assign requests received from Project Teams to this category. The Project Team will establish the maximum time for fulfillment with the Fulfillment Group (s). The Fulfillment Group (s) will have 8 working hours to review the request and respond to the Project Team and 30 days to resolve the request. Workstation Change Control (WCC) Change Request Forms (CRF) for software and hardware will be assigned to this priority. All requests will be fulfilled by the requested or agreed upon date.
- ♦ **P6** – Non-routine tasks which have extended completion times will be assigned this priority.

Significance – A term used to identify the different priority levels as a measure of importance to the organization.

Response Time – How long a Fulfillment Group or incident management team has to review a ticket and begin a response.

Resolution Time – The measure of time an incident or Service Request can remain in a non-resolved status before an SLA Breach occurs.

Impact – Is a measure of the extent of perceived effect to systems or users and the potential damage to the organization before the incident or ticket is resolved.

- ♦ Enterprise – Where an incident or task affects a majority of Library users.
- ♦ Congress – Where an incident or task affects any congressional web site hosted on or in development by a LC system or team.
- ♦ Public – Where the system or service is commonly available to the general public.
- ♦ Service Unit – Where an affected system or service supports all or the greater part of a Service Unit.
- ♦ Division/Office – Where an affected system or service supports a building/floor/partial floor/division/office.
- ♦ Enhance User – Where the requestor or the requestor's assistant appears on the approved Enhanced User list.
- ♦ Individual – Where the requestor is a single user.

Urgency – Is a means for categorizing how quickly an incident or ticket needs to be resolved.

- ♦ **Work Stoppage** – An interruption of IT services or access to one or more systems which results in one or more users not being able to perform routine assigned tasks which they are normally able to perform.
- ♦ **Work Degradation** – Where an IT system continues to be useable but performs below normal operating levels. A system may be slow to respond to user requests or part of a system may fail entirely with other parts continuing to function.
- ♦ **Service Request** – A request for a routine service has been submitted and will be routed to a Fulfillment Group for action. There are no users or systems experiencing an incident.
- ♦ **Processes** – For routine Service Requests which require multiple steps or an extended period to fulfill which do not directly affect a specific user. An example would include a change request for software to be approved which requires an extended amount of time to fulfill due to the number of steps and groups involved.
- ♦ **Project Support Tasks** – For Service Requests originating from a Project Team. To be used where a Project Team requires support from a Fulfillment Group outside the Project Team.
- ♦ **Non - Routine Tasks** – For long term tasks that are not Projects and are not routine tasks which may require 1 to 6 months to complete.

3.0 SYSTEMS MAINTENANCE & POLICY

The following events may impact service availability:

- **Planned maintenance windows** – CIO is required to update and maintain the technical infrastructure on a regular basis per Maintenance Policy dated July 1, 2013. The agreed change windows for this work are:

- ◆ Maintenance activity that is expected to take less than 4 hours will take place on the first and third Tuesday of each month beginning at 9:00pm Tuesday and ending by 3:00am on Wednesday;
- ◆ Maintenance activity that is expected to take less than 12 hours to complete will take place on the second and fourth Sunday of each month beginning at 6:00am and ending by 6:00pm the same day;
- ◆ Maintenance activities will be suspended for certain periods during which maintenance may disrupt special events that require uninterrupted service, (e.g., when Congressional activities are in progress, the National Book Festival, End of Fiscal Year activities September 30th). The CIO and COP will identify these events and coordinate maintenance accordingly; and
- ◆ **Emergency system maintenance** – From time to time critical maintenance, such as urgent security patches may need to be performed within business hours which may impact on service availability. Staff will be notified and all attempts will be made to minimize the business impact of the changes.

Maintenance windows are not included in the availability column of the SLA.

4.0 ROLES AND RESPONSIBILITIES

4.1 THE CIO RESPONSIBILITIES

CIO has the following general responsibilities under this agreement:

- ◆ Conduct business in a courteous and professional manner with clients;
- ◆ Meet response times associated with the priority assigned to client issues;
- ◆ Ensure staff are appropriately trained and currency of training is maintained;
- ◆ Maintain adequate escalation procedures with the Priority Matrix table;
- ◆ Coordinate with COP on any maintenance that may impact the availability of COP systems even if it is during the maintenance windows;
- ◆ Log and track all client requests for service through the Service Desk System
- ◆ Maintain and keep current all offered services;
- ◆ Provide proper communication and notice of changes in services; and
- ◆ Monitor and track all SLAs and report out results.

4.2 THE COP RESPONSIBILITIES

COP has the following general responsibilities under this agreement:

- ◆ Be familiar with the CIO policies and procedures for governing the acceptable use of information and communication technologies and adhere to same;
- ◆ Follow appropriate notification and escalation procedures;
- ◆ Maintain a service unit help desk that serves as the primary contact point for COP users. The help desk provides tier 1 and tier 2 IT support and only forwards to ITS Service Desk requests and incidents that involve infrastructure or issues that are beyond the scope of COP responsibility
- ◆ Determine appropriate support issue priority(P1-P6) in cooperation with the Service Desk;
- ◆ Be willing and available to provide critical information within 4 hours of logging a request with the Service Desk for any urgent matters.
- ◆ Notify the CIO Office of COP business changes that impact the relevance of SLAs.

4.3 ESCALATION PATH

It is important to the success of the relationship between OCIO and COP that both parties understand the escalation chain in the event that there is an SLA Breach, or a reported Service Incident, and agreement cannot be reached as to the root cause or resolution. The following escalation path should be followed:

1. Office of the Chief Information Officer, Deputy Chief Information Officer (DCIO)
2. Office of the Chief Information Officer (OCIO), Chief Information Officer (CIO)
3. Chief Operating Officer (COO)

5.0 PERIODIC REVIEW PROCESS

This SLA is a mutually endorsed document and will be periodically reviewed and changed when the following events occur:

- ♦ The technological capability has been drastically reduced.
- ♦ Funds availability has been drastically changed.
- ♦ Unscheduled service disruptions have greatly altered information system processes.

This Service Level Agreement will be reviewed semi-annually in fiscal 2016 and annually thereafter to capture any expected changes in commodity IT service offerings and service levels. Contents of this document may be amended as required, provided mutual agreement is obtained and communicated to all affected parties. The Document Owner will incorporate all subsequent revisions and obtain mutual agreements / approvals as required.

Document Owner: OCIO

Review Period: October 1, 2015 – September 30, 2016

Previous Review Date: N/A

Next Review Date:

6.0 SIGNATURES

Bernard Barton Jr.
Name

OCIO/CIO - ITSC Chair
Title

Signature

Date

Name

COP/ITSC Member
Title

Signature

Date

DRAFT

APPENDIX A: DEFINITIONS, ABBREVIATIONS, AND ACRONYMS

Term	Definition
Access Management	The process responsible for allowing users to make use of IT services, data or other assets. Access management helps to protect the confidentiality, integrity and availability of assets by ensuring that only authorized users are able to access or modify them.
Asset	Any resource or capability. The assets of a service provider include anything that could contribute to the delivery of a service. Assets can be one of the following types: management, organization, process, knowledge, people, information, applications, infrastructure or financial capital.
Audio & Video Teleconferencing (VTC)	Audio & Video Teleconferencing Conferencing services provides technology and support to aid in the presentation and communication of relevant content and information to Library staff, and special events during normal business hours.
Availability	Availability of an IT service is determined by reliability, maintainability, serviceability, performance and security. Availability is usually calculated as a percentage. This calculation is often based on agreed service time and downtime.
Commodity IT	Core services which include: IT infrastructure (e.g., data centers, networks, workstations, and software applications,); and Enterprise IT services (e.g., e-Mail, web infrastructure, collaboration tools, security, identity and access management). Commodity IT is asset-oriented, while enterprise IT services may, at times, be more utility-oriented (defined as purchasing by usage rate).
Congress	Where an incident or task affects any congressional web site hosted on or in development by a LC system or team.
Database Administration	Supports Library databases/database applications by developing architecture, establishing standards, monitoring, managing, and addressing security related issues to databases.
Desktop Computing	This service provides support services for workstations and connected peripherals. Including print services which enable all computers connected to the LOC network, including staff laptops connected wirelessly, to print to large multi-function devices and small desktop printers.
DHS	Department of Homeland Security
Division/Office	Where an affected system or service supports a building/floor/partial floor/division/office.
Email	Enterprise email supporting internal, employee to employee(s), or external, employee to customer, vendors, or business partners.
Enhanced users	A small number of SU users, which have been permitted enhanced service due to their critical roles in the organization.
Enterprise	Where an incident or task affects a majority of Library users.
Fulfillment Group	The assigned team for Service Requests.
Hosting Services	This service provides support services internal to LOC environment

Term	Definition
	comprising of the following: <ul style="list-style-type: none"> • Application • Database • Server • Storage • Infrastructure
Impact	Impact is a measure of the extent of perceived effect to systems or users and the potential damage to the organization before the incident or ticket is resolved.
Individual	Where the requestor is a single user.
Information Security Management	This service provides the protection of the Library information and information structure assets against the risk of loss, misuse, disclosure or damage. Develops, implements, and manages the controls that ensure that the Library is managing these risks.
Internet (ISP)	Services provide secure network connectivity to the Internet.
LOC	Library of Congress
Messaging & Collaboration	This service provides tools and capabilities that allow users to communicate and collaborate. This includes systems such as (e.g., SharePoint, Instant Messaging and GroupWise).
Mission Services	Mission Services are core purpose and functional capabilities of the Federal Government, such as disaster response, food safety, and national defense and employment services. Some Mission Services may have a single Federal organization focused on providing that service, while other mission services have multiple Federal organizations providing parts of a service. This may be due to statute, budget or other unique capabilities an agency may have developed.
Mobile Devices	Devices such as iPhones, Androids, and tablets. These devices will be either validated (meets security requirements and has undergone the assurance process defined by IT Security) or non-validated (does not meet the security requirements and/or has not undergone the assurance process defined by IT Security).
MOU	Memorandum of Understanding - A MOU is a formal agreement between the CIO and a SU. MOUs shall be used by the CIO as follow-on documents to the baseline SLA for the purpose of defining new or expanded services which are either not defined within the baseline SLA or which need to be redefined.
Non - Routine Tasks	Consists of long term tasks that are not Projects and are not routing tasks which may require 1 to 6 months to complete.
Normal Business Hours	The time period when a particular IT service is available from the OCIO Service Desk. Services will be provided between the hours of 7:00 a.m. and 5:00 p.m., Monday through Friday. (*Note: See Service Desk)
CIO	Chief Information Officer - CIO ensures the effective delivery of information technology resources and services in support of the Library's mission, functions, and activities.
Priority	The measure of response expected from a Fulfilment Group or incident management team. Allowed response times are measured in minutes,

Term	Definition
	hours and days.
P1	Priority 1- During a P1 incident the CIO will, within 15 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and delivered to the Public Affairs Office for distribution. Within 4 working hours the CIO will resolve the incident.
P2	During a P2 incident the CIO will, within 30 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and delivered to the Public Affairs Office for distribution. Within 8 working hours the CIO will resolve the incident. Enhanced User Service Requests will be assigned a P2 priority. Where an Enhanced User request is added to a Fulfillment Group queue the request will be treated as first in queue and fulfilled with the least delay.
P3	Routine requests will be assigned this priority level except for Enhanced User requests. P3 requests will be placed in queue and fulfilled in turn (FIFO) by a Fulfillment Group(s). The Fulfillment Group(s) will respond to the request within 4 working hours and resolve the request within 5 days. Use this priority where an incident has occurred which does not have an immediate operational impact or where a workaround is available to the user.
P4	A low priority request that does not immediately impact the ability for a person or team to complete their assigned tasks. P4 requests will be acknowledged within one day and will be resolved within 10 business days.
P5	Assign requests received from Project Teams to this category. The Project Team will establish the maximum time for fulfillment with the Fulfillment Group (s). The Fulfillment Group (s) will have 8 working hours to review the request and respond to the Project Team and 30 days to resolve the request. WCC Change Request Forms (CRF) for software and hardware will be assigned to this priority. All requests will be fulfilled by the requested or agreed upon date.
P6	Non-routine tasks which have extended completion times will be assigned this priority.
Priority Matrix	The Priority Matrix establishes categories of urgency and acceptable response times for a given incident or Service Request.
Processes	Routine Service Requests which require multiple steps or an extended period to fulfill which do not directly affect a specific user. An example would include a change request for software to be approved which requires an extended amount of time to fulfill due to the number of steps and groups involved.
Project Support Tasks	Service Requests originating from a Project Team. To be used where a Project Team requires support from a Fulfillment Group outside the Project Team.
Public	Where the system or service is commonly available to the general

Term	Definition
	public.
Resolution Time	The measure of time an incident or Service Request can remain in a non-resolved status before an SLA Breach occurs.
Response Time	How long a Fulfillment Group or incident management team has to review a ticket and provide a response.
Service	A means of delivering value to customers by facilitating outcomes customers want to achieve without the ownership of specific costs and risks.
Service Desk	The single point of contact between the service provider and the users. The Help Desk will answer phone calls and email from our LC End Users, 24 hours a day, and 363 days a year, to open trouble tickets. The Help Desk is closed on the two holidays July 4th and Christmas. Work on tickets opened after hours and on weekends or holidays will begin at 7:00 AM the next business day.
Service Desk Catalogue	A structured document with information about all live IT services, including those available for deployment. The service catalogue is part of the service portfolio and contains information about two type of IT service: customer-facing services that are visible to the SUs; and supporting services required by the service provider to deliver customer-facing services.
Service Level Agreement (SLA)	An SLA is a document that establishes an agreement between an IT service provider and a client to describe IT services, specify the responsibilities of both parties, and document the expected service-level targets.
SLA Breach	Exceeding the maximum time frame required for the effective response or the timeframe required for the ticket solution in accordance with the terms and level of the ticket solution in compliance with its categorization in the Priority Matrix.
Service Level Targets (SLT)	Service Level Targets (SLT) - SLTs are event-driven performance criteria which give context to measures and provide a mathematical basis to understand organizational performance.
Service Request	A request for a routine service has been submitted and will be routed to a Fulfillment Group for action. There are no users or systems experiencing an incident.
Service Unit (SU)	Library support business unit.
Significance	A term used to identify the different priority levels as a measure of importance to the organization.
Support Services	Support services are defined by the capabilities that support common business functions performed by nearly all Federal organizations. These include functional areas such as budgeting, financial, human resources, asset, and property and acquisition management.
Telecommunications	This service provides solutions that support the LOC telecommunications needs. This includes the following: <ul style="list-style-type: none"> • Voice: Support for telephony tools, hardware, software, and voice data infrastructure • Data: Support for tools, hardware, and infrastructure that supports

Term	Definition
	data transmission. • Facilities: Oversight support for the Library data center, to include power, location, and cabling.
Telework/COOP - Laptops	This service provides support for an employee to perform work, during any part of regular, paid hours, at an approved alternate worksite (e.g. home or telework center).
Urgency	The categorization of how quickly an incident or ticket needs to be resolved.
Wireless	Services provide secure network connectivity to the LOC wireless network for staff and the general public. In Building Wireless: The cellular network within the confines of LOC buildings providing staff and visitors access to external cellular carrier networks, both data and voice. Wi-Fi: The LOC wireless local area network offered to staff and visitors to provide data connectivity to the internet. LOC Guest is the current LOC Wi-Fi.
Work Degradation	Where an IT system continues to be useable but performs below normal operating levels. A system may be slow to respond to user requests or part of a system may fail entirely with other parts continuing to function.
Work Stoppage	An interruption of IT services or access to one or more systems which results in one or more users not being able to perform routine assigned tasks which they are normally able to perform.

APPENDIX B: ENTERPRISE-WIDE APPLICATIONS

Enterprise Wide Applications
American Memory
Application Express (APEX)/Oracle Middleware
CENS
Central Contractor Registration Connector (CCRC)
Chronicle America (ChronAm)
ColdFusion Middleware
Confluence
Congress.gov
Consolidated Staff Directory (CSD)
Content Transfer Services (CTS)
Control-M (AHE)
Correspondence Control Management (CCM) Enterprise
EmpowHR
Encoded Archival Descriptions (EAD) Finding Aids
Facility and Asset Management Enterprise (FAME)
Facility Automated Services Tracking System (FAST)
Financial Reporting System (FRS)
FootPrints (OCIO)
Geospatial Hosting Environment (GHE)
GForge
Handle Server
Hiring Management Enterprise Suite (HMES)
Integrated Library System (ILS)
Internal Control Program (ICP) Manager
LC Budget System
Momentum Financial Management System (FMS)
Online Learning Center (OLC)
Parking Program Management System (PPMS)

Enterprise Wide Applications	
Payroll Analysis Module (PAM)	
Performing Arts Encyclopedia	
Prints & Photographs Online Catalog (PPOC)	
Raiser's Edge	
SkillPort	
Strategic Management System (eLCplans)	
Teamsite	
THOMAS	
Web Time & Attendance (WebTA)	
Webcast	
Wiki	
WordPress	

CIO

SERVICE LEVEL AGREEMENT

APPENDIX D: COP PRIORITY MATRIX ENHANCED USER LIST

The CIO permits customers to designate a small number of their users, Enhanced Users, to have enhanced service due to their critical roles in the organization. Enhanced users' incidents are labeled as such to allow them to be handled judiciously to insure the best possible response and resolution times for the incident priority setting and available resources

Organization / Department/Office	Name	Phone	E-mail Address
Register of Copyrights	Maria Pallante	(202) 707-8359	mpall@loc.gov
Special Advisor to the Register of Copyrights	Catherine Rowland	(202) 707-0956	crowland@loc.gov
Special Assistant to the Register	Syreeta Swann	(202) 707-8052	sswa@loc.gov
General Counsel and Associate Register of Copyrights	Jacqueline Charlesworth	(202) 707-8772	jcharlesworth@loc.gov
Deputy General Counsel	Sy Damle	(202) 707-3572	sdam@loc.gov
Director of Policy & International Affairs and Associate Register of Copyrights	Karyn Temple Claggett	(202) 707-7845	kacd@loc.gov
Deputy Director of Policy & International Affairs	Maria Strong	(202) 707-8390	mstrong@loc.gov
Director of Registration Policy & Practices and Associate Register of Copyrights	Robert Kasunic	(202) 707-0229	rkas@loc.gov
Deputy Director of Registration Policy & Practices	Erik Bertin	(202) 707-7566	ebertin@loc.gov
Director of Public Information & Education and Associate Register of Copyrights	William Roberts	(202) 707-8391	wroberts@loc.gov
Director of Office of Public Records and Repositories	Elizabeth Scheffler	(202) 707-6042	esch@loc.gov
Chief of Operations, Copyright	David Christopher	(202) 707-8825	dchr@loc.gov
Chief Information Officer, Copyright	Douglas Ament	(202) 707-5440	dament@loc.gov
Director, Copyright Technology Office	Ricardo Farraj-Fejoo	(202) 707-0110	rfar@loc.gov
Chief Copyright Royalty Judge (CRJ)	Suzanne Barnett	(202) 707-8386	suba@loc.gov
*Note: CRJ is not a part of the Copyright Office and any IT-related questions from Judge Barnett should be handled by ITS and not forwarded to COP for response.			

Ament, Douglas

From: Banks, Al
Sent: Tuesday, September 29, 2015 3:47 PM
To: Yu, KanKan; Daye, Stacian C.
Cc: Ament, Douglas; Farraj-Feijoo, Ricardo
Subject: RE: CIO SLA Process Feedback (COP)

KanKan,

Thanks for the feedback. The SLA document(s) were sent to Doug earlier this afternoon for signature.

Thanks again for your participation in this process. The recommendations and ideas that we received we received from Copyright, and you and Ricardo specifically, helped improve the overall service level agreement standard language for all organizations.

Thanks,

Al

From: Yu, KanKan
Sent: Tuesday, September 29, 2015 3:43 PM
To: Daye, Stacian C.
Cc: Ament, Douglas; Banks, Al; Farraj-Feijoo, Ricardo
Subject: RE: CIO SLA Process Feedback (COP)

Stacian,

You would need to follow up with Doug and Ricardo regarding acknowledgements, approvals, and signatures for the SLA document.

Please see completed table below:

Organization	Primary Contact	Secondary Contact
CTO	Doug Ament Chief Information Officer, Copyright	Ricardo Farraj-Feijoo Director, Copyright Technology Office

Thanks,
 KanKan

From: Daye, Stacian C.
Sent: Monday, September 28, 2015 8:15 PM
To: Yu, KanKan
Cc: Ament, Douglas; Banks, Al; Farraj-Feijoo, Ricardo
Subject: RE: CIO SLA Process Feedback (COP)
Importance: High

Hi Kankan,

We are in the process of finalizing the SLA document for distribution and signatures. Please update the following table with the list of names for the SLA Communication Points of Contact.

• **COP SLA Communication Points of Contact**

The following points of contact for execution of the SLA are:

Organization	Primary Contact	Secondary Contact

Thanks,
Staci

<< OLE Object: Picture (Device Independent Bitmap) >>

Stacian C. Daye
Office of Strategic Initiatives/
Information Technology Services
Email: sdaye@loc.gov
Phone: 202-707-9788

From: Yu, Kankan
Sent: Wednesday, September 16, 2015 5:25 PM
To: Daye, Stacian C.
Cc: Ament, Douglas; Banks, Al; Conklin, Judith; Farraj-Feijoo, Ricardo
Subject: RE: CIO SLA Process Feedback (COP)

Stacian,

Below are the names we would like to add to Copyright Office's "Enhanced Users" list

- Maria Pallante - Register of Copyrights
- Catherine Rowland - Special Advisor to the Register of Copyrights
- Syreeta Swann - Special Assistant to the Register

- Jacqueline Charlesworth - General Counsel and Associate Register of Copyrights
- Sy Damle - Deputy General Counsel
- Karyn Temple Claggett - Director of Policy & International Affairs and Associate Register of Copyrights
- Maria Strong - Deputy Director of Policy & International Affairs
- Robert Kasunic - Director of Registration Policy & Practices and Associate Register of Copyrights
- Erik Bertin - Deputy Director of Registration Policy & Practices
- William Roberts - Director of Public Information & Education and Associate Register of Copyrights
- Elizabeth Scheffler - Director of Office of Public Records and Repositories
- David Christopher - Chief of Operations, Copyright
- Douglas Ament - Chief Information Officer, Copyright
- Ricardo Farraj-Feijoo - Director, Copyright Technology Office

We would see that **Suzanne Barnett (Chief Copyright Royalty Judge)** be added to the Enhanced User List but please note that CRJ is not a part of the Copyright Office and any IT-related questions from Judge Barnett should be handled by ITS and not forwarded to us for response.

Please let me know if you have any questions/concerns.

Thank you,

KanKan Yu

Copyright Technology Office | U.S. Copyright Office
Library of Congress
<http://www.copyright.gov>
(202) 707-9262

From: Daye, Stacian C.
Sent: Thursday, September 10, 2015 6:57 PM
To: Farraj-Feijoo, Ricardo; Yu, KanKan
Cc: Ament, Douglas; Banks, Al; Conklin, Judith
Subject: RE: CIO SLA Process Feedback (COP)

All,

Attached are the documents that we reviewed in this morning's meeting.

<< File: DRAFT_COP_Service_Level_Agreement_9-10-15 v1.doc >>

<< File: COP SLA Feedback 9-10-15.xlsx >>

Thanks,
Staci

<< OLE Object: Picture (Device Independent Bitmap) >>

Stacian C. Daye
Office of Strategic Initiatives/
Information Technology Services
Email: sdaye@loc.gov

Phone: 202-707-9788

From: Daye, Stacian C.
Sent: Thursday, September 10, 2015 9:42 AM
To: Farraj-Feijoo, Ricardo
Cc: Ament, Douglas; Banks, Al; Conklin, Judith; Najia, Dina; Yu, KanKan
Subject: RE: CIO SLA Process Feedback (COP)

Good Morning Ricardo,

We are still on schedule to meet today. All of your questions and comments will be reviewed and discussed during today's meeting. An updated SLA document will also be distributed at the meeting.

See you soon!

*Thanks,
 Staci*

<< OLE Object: Picture (Device Independent Bitmap) >>
*Stacian C. Daye
 Office of Strategic Initiatives/
 Information Technology Services
 Email: sdaye@loc.gov
 Phone: 202-707-9788*

From: Farraj-Feijoo, Ricardo
Sent: Thursday, September 10, 2015 9:03 AM
To: Yu, KanKan; Najia, Dina; Daye, Stacian C.
Cc: Ament, Douglas
Subject: RE: CIO SLA Process Feedback (COP)

Are we still meeting today? We have not received any feedback regarding our initial comments.

Thanks,

Ricardo

From: Yu, KanKan
Sent: Wednesday, September 09, 2015 12:25 PM
To: Najia, Dina; Daye, Stacian C.
Cc: Farraj-Feijoo, Ricardo; Ament, Douglas
Subject: RE: CIO SLA Process Feedback (COP)

Dina, Stacian:

Are there any documents associated with this meeting other than the comment document and samples we sent in July?

Thanks,
KanKan

-----Original Appointment-----

From: Najia, Dina

Sent: Thursday, September 03, 2015 8:52 AM

To: Najia, Dina; Conklin, Judith; Banks, Al; Daye, Stacian C.; Farraj-Feijoo, Ricardo; Yu, KanKan

Cc: Ament, Douglas; David, Kimble A.

Subject: CIO SLA Process Feedback (COP)

When: Thursday, September 10, 2015 11:00 AM-11:30 AM (UTC-05:00) Eastern Time (US & Canada).

Where: Judith's (New) Office LM 630

COP Feedback to CIO on SLA Process

Ament, Douglas

From: Banks, Al
Sent: Thursday, October 01, 2015 8:02 AM
To: Ament, Douglas
Cc: Christopher, David; Farraj-Feijoo, Ricardo
Subject: Re: SLA for COP for signature

No worries. We will have a completed document available soon. Al

On Sep 30, 2015, at 3:34 PM, Ament, Douglas <dament@loc.gov> wrote:

Nigel/Al,

Prior to signature of any such document, the Office would require an appropriate USCO review. I'm not sure how other ITSC members feel but I personally do not feel I possess the appropriate authority to sign such a document on behalf of the Office.

Doug

From: Elmore, Nigel
Sent: Tuesday, September 29, 2015 1:28 PM
To: Ament, Douglas
Cc: Barton, Bud; Conklin, Judith; Banks, Al
Subject: SLA for COP for signature

Doug:

Attached please find the Service Level Agreement (SLA) between the Office of the CIO and the Copyright Office.

Please print the document, then sign and date on the signature page (Section 6.0, page 14). Afterwards, please email Nigel Elmore (nelm@loc.gov) that you have signed the SLA, and then deliver the physical signed copy to Cynthia Henthorn in LM-637 (cyhe@loc.gov; 7-1934).

We need the signed documents returned by Wednesday, September 30, 2015, to meet the GAO implementation deadline.

As was stated in the September ITSC meeting and as Judith Conklin (acting DCIO) has explained to each of you individually, OCIO realizes some service units have additional concerns, all of which OCIO plans to address as soon as possible after the September 30th deadline.

We appreciate your support and patience with this effort.

Bernard Barton, Jr., CIO

Ament, Douglas

From: Yu, KanKan
Sent: Monday, October 05, 2015 3:06 PM
To: Daye, Stacian C.
Cc: Farraj-Feijoo, Ricardo
Subject: SLA Document
Attachments: RE: CIO SLA Process Feedback (COP)

Stacian,

For my organizational purposes, is there a more recent version of the SLA document since we last spoke? I believe the last version you had sent me was from 9/10's meeting but I'm not sure if that was the same version that was distributed recently. If not, can you send me the latest?

Thanks,
KanKan

KanKan Yu

Copyright Technology Office | U.S. Copyright Office
Library of Congress
<http://www.copyright.gov>
(202) 707-9262

Yu, KanKan

From: Daye, Stacian C.
Sent: Monday, October 05, 2015 4:37 PM
To: Yu, KanKan
Cc: Farraj-Feijoo, Ricardo; Banks, Al
Subject: RE: SLA Document
Attachments: COP_ Service_Level_Agreement_9-29-2015_Final.doc

KanKan,

This is the most recent version that was sent out on 9/29/15 with the omission of the DRAFT watermark.

*Thanks,
 Staci*



LIBRARY OF
 CONGRESS

*Stacian C. Daye
 Office of Strategic Initiatives/
 Information Technology Services
 Email: sdaye@loc.gov
 Phone: 202-707-9788*

From: Yu, KanKan
Sent: Monday, October 05, 2015 3:06 PM
To: Daye, Stacian C.
Cc: Farraj-Feijoo, Ricardo
Subject: SLA Document

Stacian,

For my organizational purposes, is there a more recent version of the SLA document since we last spoke? I believe the last version you had sent me was from 9/10's meeting but I'm not sure if that was the same version that was distributed recently. If not, can you send me the latest?

Thanks,
 KanKan

KanKan Yu
 Copyright Technology Office | U.S. Copyright Office
 Library of Congress
<http://www.copyright.gov>
 (202) 707-9262

Service Level Agreement (SLA)

BETWEEN

THE UNITED STATES COPYRIGHT OFFICE (COP)

AND

THE CHIEF INFORMATION OFFICER (CIO)

For the period October 1, 2015 – September 30, 2016

DOCUMENT INFORMATION AND APPROVALS

VERSION HISTORY			
Version #	Date	Revised By	Reason for change
0.1	6/24/15	CIO	Initial draft
0.2	6/30/15	CIO	Revisions suggested by Interim CIO
0.3	7/9/15	CIO	Revisions suggested by Deputy CIO & SUs
0.4	7/14/15	CIO	Revisions suggested by Interim CIO, Deputy CIO, and SUs.
0.5	8/20/15	CIO	Revisions suggested by Interim CIO, Deputy CIO, based on questions and comments submitted by SU after their review of the Draft SLA document.
0.6	8/26/15	CIO	Revisions suggested by Deputy CIO.
0.7	9/28/15	CIO	Revisions suggested by Deputy CIO & SUs.
1.0	9/28/15	CIO	Approved

DOCUMENT APPROVALS			
Approver Name	Project Role	Signature/Electronic Approval	Date
Bernard Barton Jr.	Project Sponsor	Approved	8/28/15
Judith Conklin	Project Sponsor	Approved	8/28/15
Al Banks	OCIO Responsible Manager	Approved	8/28/15

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1.0 INTRODUCTION

1.1 Overview of CIO

The Chief Information Officer (CIO) ensures the effective delivery of information technology resources and services in support of the Library's mission, functions, and activities. The mission of CIO is to provide reliable and effective information systems and telecommunications services to the Library in support of its efforts to serve Congress and the nation, manage and provide access to its collections, and plan, design, and implement systems that define the future digital library and information infrastructure.

1.2 SCOPE OF AGREEMENT

This is a Service Level Agreement (SLA) between CIO and the Library of Congress (LOC) United States Copyright Office (COP) for the period October 1, 2015 through September 30, 2016. The purpose of this SLA is to establish baseline support levels for Commodity IT services that are provided by CIO to COP.

This SLA is binding upon CIO and COP. The CIO and COP may change this agreement when widespread service-affecting issues arise, new technologies develop, or requirements change. All modifications must be agreed upon by both the CIO and COP. The CIO and COP agree to engage in good-faith efforts to resolve any problems which may arise.

As needed and appropriate Memoranda of Agreement (MOUs) will establish support levels for specialized CIO support not covered in this agreement.

***Note:** In the interest of time, and the approaching September 30th deadline, the Acting Deputy CIO and the SLA Project Team has requested that the SUs let the SLA document go forward and OCIO agreed to address all of the SUs concerns as soon as possible, after the September 30th deadline.*

1.3 ASSUMPTIONS

This agreement relies on certain operational assumptions. Should any of these assumptions change, then the CIO and COP will negotiate and agree upon any necessary adjustments to this agreement.

- ◆ Support levels established by this agreement will be provided.
- ◆ All IT-related mandates, such as regulatory or Congressional, have been accounted for in this SLA.

1.4 OUTSIDE CIO'S CONTROL

The services provided under this SLA may be temporarily suspended in part or in full by the CIO or other LOC or U.S. Government officials in the instance of unplanned, widespread, service-affecting issues. The services will be considered to be in "reduced

service mode" in the instance of service-affecting issues which render the entire LOC enterprise unusable or severely degraded, these may include:

- ◆ Certain Department of Homeland Security (DHS) alerts;
- ◆ Severe weather or other natural occurrences like earthquakes, asteroid strikes, etc. which affect wide-area communication links, or utility services or prevent technicians from reaching their workplaces;
- ◆ A Government shutdown, declared by the Office of Personnel Management;
- ◆ Certain security threats and attacks; and,
- ◆ Scheduled life & safety testing.

Restoration of services covered under this SLA may be subject to factors outside of CIO's control. These may include vendor lead time (for purchases or vendor-provided repairs) and service provider lead time.

Unless specifically stated otherwise, OCIO will pay the cost of the commodity level service offerings pending availability of funds.

2.0 IT SERVICES

The services listed here are standard, meaning that these services are provided at no cost to COP.

As noted by the Federal Information Technology Shared Services Strategy¹, and the Federal IT Shared Services Implementation Guide², there are three general categories of shared services in the Federal Government: commodity IT, support, and mission services, as described below:

1. **Commodity IT Services** – As described in OMB Memorandum M-11-29,³ examples of commodity IT shared services opportunities include:

- IT infrastructure (e.g., data centers, networks, workstations, and core software); and ,
- Enterprise IT services (e.g., e-Mail, web infrastructure, collaboration tools, security, identity and access management). Commodity IT is asset-oriented, while enterprise IT services may, at times, be more utility-oriented (defined as purchasing by usage rate).

2. **Support Services** – Are defined by the capabilities that support common business functions performed by nearly all Federal organizations. These include functional

¹ Federal Information Technology Shared Services Strategy, Office of Management and Budget (OMB), Office of E-Government and Information Technology, May 2, 2012

http://www.whitehouse.gov/sites/default/files/omb/assets/egov_docs/shared_services_strategy.pdf

² Federal Information Technology Shared Services Implementation Guide, CIO Council, April 13, 2013

<https://cio.gov/wp-content/uploads/downloads/2013/04/CIO-C-Federal-Shared-Services-Implementation-Guide.pdf>

³ Office of Management and Budget (OMB), M-11-29, Chief Information Officer Authorities, August 8, 2011

areas such as budgeting, financial, human resources, asset, property, and acquisition management.

3. Mission Services – These are core purpose and functional capabilities of the Federal Government; such as disaster response, food safety, and national defense and employment services. Some Mission Services may have a single Federal organization focused on providing that service, while other mission services have multiple Federal organizations providing parts of a service. This may be due to statute, budget or other unique capabilities an agency may have developed.

The scope of this SLA will cover Commodity IT Services.

2.1 COMMODITY IT SERVICES

The following tables contain the services within the scope of this SLA.

	Service Name	Service Description	Availability	Service Level Target (SLT)
1.	Access Management	The process responsible for allowing users to make use of IT services, data or other assets. Access management helps to protect the confidentiality, integrity and availability of assets by ensuring that only authorized users are able to access or modify them.	99% The Service Desk is closed on the two holidays, July 4th and December 25 th .	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
2.	Audio & Video Teleconferencing (VTC)	Audio & Video Teleconferencing services provides technology and support to aid in the presentation and communication of relevant content and information to Library staff, and special events.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
3.	Database Administration	Supports Library databases/database applications by developing architecture, establishing standards, monitoring, managing, and addressing security related issues to databases.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
4.	Email	Enterprise email supporting internal, employee to employee(s), or external, employee to customer, vendors, or business partners.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
5.	Desktop Computing	This service provides support services for workstations and connected peripherals. Including print services which enable all computers connected to the LOC network, to print to large multi-function devices and small desktop	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
				♦ Software Changes review and approval

CIO SERVICE LEVEL AGREEMENT				
	Service Name	Service Description	Availability	Service Level Target (SLT)
		printers. CORE software is included. COP is financially responsible for Non-CORE software acquisitions and associated maintenance cost. COP is financially responsible for desktop and network printer acquisitions.		schedule is defined as P5 with in the Priority Matrix table.
6.	Hosting Services	This service provides support services internal to LOC environment comprising the following: <ul style="list-style-type: none"> ♦ Application ♦ Database ♦ Server ♦ Storage ♦ Infrastructure (e.g. CAPNET, DNS, VPN) 	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
7.	Information Security Management	This service provides the protection of the Library data and digital information and information structure assets against the risk of loss, misuse, disclosure or damage. Develops, implements, and manages the controls that ensure that the Library is managing these risks.	99%	As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
8.	Internet (ISP)	Services provide secure network connectivity to the Internet.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
9.	Messaging & Collaboration	This service provides tools and capabilities that allow users to communicate and collaborate. This includes systems such as: SharePoint, Instant Messaging, and GroupWise.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
10.	Mobile Devices	This service provides the mobile devices and capabilities that allow users to access Library technology resources. These are devices such as iPhones, Androids, and tablets. Only validated (meets security requirements and has undergone the assurance process defined by IT	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)

CJO SERVICE LEVEL AGREEMENT				
Service Name	Service Description	Availability	Service Level Target (SLT)	
	Security devices will be supported in this service category. COP is financially responsible for the mobile devices and service plans. This service provides solutions that support the LOC telecommunications needs. This includes the following:			
11. Telecommunications	<ul style="list-style-type: none"> ♦ Voice: Support for telephony tools, hardware, software and voice data infrastructure ♦ Data: Support for tools, hardware, and infrastructure that supports data transmission. ♦ Facilities: Oversight support for the Library data centers, to include power, location, and cabling. 	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)	
12. Telework/COOP - Laptops	This service provides support for an employee to perform work, during any part of regular, paid hours, at an approved alternate worksite (e.g., home or telework center). [Insert SU name] is financially responsible for laptop acquisitions. Services provide secure network connectivity to the LOC wireless network for staff and the general public.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)	
13. Wireless	<ul style="list-style-type: none"> ♦ In Building Wireless: The cellular network within the confines of LOC buildings providing staff and visitors access to external cellular carrier networks, both data and voice. ♦ Wi-Fi: The LOC wireless local area network offered to staff and visitors to 	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)	

CIO SERVICE LEVEL AGREEMENT				
	Service Name	Service Description	Availability	Service Level Target (SLT)
14.	Service Desk (ITS Help Desk)	<p>provide data connectivity to the internet and access to collections. LOC Guest is the current LOC Wi-Fi.</p> <p>The Service Desk is designed to be the single point of contact for users to request additional services or report issues with existing services to IT.</p> <p><i>Copyright users contact the Copyright Help Desk. Issues which are beyond the scope of COP's responsibility are referred to the ITS Service Desk</i></p> <p><i>(*Note: To the extent users contact the Service Desk, they will be supported)</i></p>	<p>99%</p> <p>The Service Desk is closed on the two holidays, July 4th and December 25th.</p>	<p>♦ As defined by Service Desk Catalogue</p> <p><i>(*Note: See Table Below - Priority Matrix)</i></p>
15.	Workstation Configuration Change management	Management of workstation applications to ensure a secure and functional workstation environment and deployment to staff and public workstations.	30 days	<p>♦ Processing of new and changed workstation applications within 2 weeks. Deployment to relevant workstations must be accomplished seamlessly, as applications are approved.</p>

Priority Matrix

Urgency	Impact					
	Enterprise	Congress	Public	Service Unit	Division/Office	Enhanced User
Work Stoppage	P1	P1	P1	P1	P2	P2
Work Degradation	P1	P1	P1	P2	P2	P2
Service Request	P3	P3	P3	P3	P3	P3
Processes	P3	P3	P4	P4	P4	P4
Project Support Tasks	P5	P4	P5	P5	P5	P5
Non - Routine Tasks	P6	P6	P6	P6	P6	P6

Priority	Significance	Response Time	Resolution Time
P1	Critical	15 Minutes	4 Hours
P2	High	30 Minutes	1 Day
P3	Standard	4 Hour	5 Days
P4	Low	1 Day	10 Days
P5	Routine Process	1 Day	30 Days
P6	Non - Routine Tasks	1 Day	6 Months

Priority Matrix

Priority Matrix – The Priority Matrix establishes categories of urgency and acceptable response times for a given incident or Service Request.

Incident – An unplanned interruption to an IT service.

Priority – The measure of response expected from a Fulfillment Group or incident management team. Allowed response times are measured in minutes, hours and days.

- ♦ **P1** – During a P1 incident the CIO will, within 15 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and delivered to the Public Affairs Office for distribution. Within 4 working hours the CIO will resolve the incident.
- ♦ **P2** – During a P2 incident the CIO will, within 30 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and delivered to the Public Affairs Office for distribution. Within 8 working hours the CIO will resolve the incident.
 - Enhanced User Requests will be assigned a P2 priority. Where an Enhanced User request is added to a Fulfillment Group queue the request will be treated as first in queue and fulfilled with the least delay.
- ♦ **P3** – Routine requests will be assigned this priority level except for Enhanced User requests. P3 requests will be placed in queue and fulfilled in turn (FIFO) by a Fulfillment Group(s). The Fulfillment Group(s) will respond to the request within 4 working hours and resolve the request within 5 days.
 - Use this priority where an incident has occurred which does not have an immediate operational impact or where a workaround is available to the user.
- ♦ **P4** – A low priority request that does not immediately impact the ability for a person or team to complete their assigned tasks. P4 requests will be acknowledged within one day and will be resolved within 10 business days.
- ♦ **P5** – Assign requests received from Project Teams to this category. The Project Team will establish the maximum time for fulfillment with the Fulfillment Group (s). The Fulfillment Group (s) will have 8 working hours to review the request and respond to the Project Team and 30 days to resolve the request. WCC Change Request Forms (CRF) for software and hardware will be assigned to this priority. All requests will be fulfilled by the requested or agreed upon date.
- ♦ **P6** – Non-routine tasks which have extended completion times will be assigned this priority.

Significance – A term used to identify the different priority levels as a measure of importance to the organization.

Response Time – How long a Fulfillment Group or incident management team has to review a ticket and begin a response.

Resolution Time – The measure of time an incident or Service Request can remain in a non-resolved status before an SLA Breach occurs.

Impact – Is a measure of the extent of perceived effect to systems or users and the potential damage to the organization before the incident or ticket is resolved.

- ♦ Enterprise – Where an incident or task affects a majority of Library users.
- ♦ Congress – Where an incident or task affects any congressional web site hosted on or in development by a LC system or team.
- ♦ Public – Where the system or service is commonly available to the general public.
- ♦ Service Unit – Where an affected system or service supports all or the greater part of a Service Unit.
- ♦ Division/Office – Where an affected system or service supports a building/floor/partial floor/division/office.
- ♦ Enhance User – Where the requestor or the requestor's assistant appears on the approved Enhanced User list.
- ♦ Individual – Where the requestor is a single user.

Urgency – Is a means for categorizing how quickly an incident or ticket needs to be resolved.

- ♦ **Work Stoppage** – An interruption of IT services or access to one or more systems which results in one or more users not being able to perform routine assigned tasks which they are normally able to perform.
- ♦ **Work Degradation** – Where an IT system continues to be useable but performs below normal operating levels. A system may be slow to respond to user requests or part of a system may fail entirely with other parts continuing to function.
- ♦ **Service Request** – A request for a routine service has been submitted and will be routed to a Fulfillment Group for action. There are no users or systems experiencing an incident.
- ♦ **Processes** – For routine Service Requests which require multiple steps or an extended period to fulfill which do not directly affect a specific user. An example would include a change request for software to be approved which requires an extended amount of time to fulfill due to the number of steps and groups involved.
- ♦ **Project Support Tasks** – For Service Requests originating from a Project Team. To be used where a Project Team requires support from a Fulfillment Group outside the Project Team.
- ♦ **Non - Routine Tasks** – For long term tasks that are not Projects and are not routine tasks which may require 1 to 6 months to complete.

3.0 SYSTEMS MAINTENANCE & POLICY

The following events may impact service availability:

- **Planned maintenance windows** – CIO is required to update and maintain the technical infrastructure on a regular basis per Maintenance Policy dated July 1, 2013. The agreed change windows for this work are:
 - ◆ Maintenance activity that is expected to take less than 4 hours will take place on the first and third Tuesday of each month beginning at 9:00pm Tuesday and ending by 3:00am on Wednesday;
 - ◆ Maintenance activity that is expected to take less than 12 hours to complete will take place on the second and fourth Sunday of each month beginning at 6:00am and ending by 6:00pm the same day;
 - ◆ Maintenance activities will be suspended for certain periods during which maintenance may disrupt special events that require uninterrupted service, (e.g., when Congressional activities are in progress, the National Book Festival, End of Fiscal Year activities September 30th). The CIO and COP will identify these events and coordinate maintenance accordingly; and
 - ◆ **Emergency system maintenance** – From time to time critical maintenance, such as urgent security patches may need to be performed within business hours which may impact on service availability. Staff will be notified and all attempts will be made to minimize the business impact of the changes.

Maintenance windows are not included in the availability column of the SLA.

4.0 ROLES AND RESPONSIBILITIES

4.1 THE CIO RESPONSIBILITIES

CIO has the following general responsibilities under this agreement:

- ◆ Conduct business in a courteous and professional manner with clients;
- ◆ Meet response times associated with the priority assigned to client issues;
- ◆ Ensure staff are appropriately trained and currency of training is maintained;
- ◆ Maintain adequate escalation procedures with the Priority Matrix table;
- ◆ Coordinate with COP on any maintenance that may impact the availability of COP systems even if it is during the maintenance windows;
- ◆ Log and track all client requests for service through the Service Desk System
- ◆ Maintain and keep current all offered services;
- ◆ Provide proper communication and notice of changes in services; and
- ◆ Monitor and track all SLAs and report out results.

4.2 THE COP RESPONSIBILITIES

COP has the following general responsibilities under this agreement:

- ◆ Be familiar with the CIO policies and procedures for governing the acceptable use of information and communication technologies and adhere to same;
- ◆ Follow appropriate notification and escalation procedures;
- ◆ Maintain a service unit help desk that serves as the primary contact point for COP users. The help desk provides tier 1 and tier 2 IT support and only forwards to ITS Service Desk requests and incidents that involve infrastructure or issues that are beyond the scope of COP responsibility
- ◆ Determine appropriate support issue priority(P1-P6) in cooperation with the Service Desk;
- ◆ Be willing and available to provide critical information within 4 hours of logging a request with the Service Desk for any urgent matters.
- ◆ Notify the CIO Office of COP business changes that impact the relevance of SLAs.

4.3 ESCALATION PATH

It is important to the success of the relationship between OCIO and COP that both parties understand the escalation chain in the event that there is an SLA Breach, or a reported Service Incident, and agreement cannot be reached as to the root cause or resolution. The following escalation path should be followed:

1. Office of the Chief Information Officer, Deputy Chief Information Officer (DCIO)
2. Office of the Chief Information Officer (OCIO), Chief Information Officer (CIO)
3. Chief Operating Officer (COO)

5.0 PERIODIC REVIEW PROCESS

This SLA is a mutually endorsed document and will be periodically reviewed and changed when the following events occur:

- ◆ The technological capability has been drastically reduced.
- ◆ Funds availability has been drastically changed.
- ◆ Unscheduled service disruptions have greatly altered information system processes.

This Service Level Agreement will be reviewed semi-annually in fiscal 2016 and annually thereafter to capture any expected changes in commodity IT service offerings and service levels. Contents of this document may be amended as required, provided mutual agreement is obtained and communicated to all affected parties. The Document Owner will incorporate all subsequent revisions and obtain mutual agreements / approvals as required.

Document Owner: OCIO

Review Period: October 1, 2015 – September 30, 2016

Previous Review Date: N/A

Next Review Date:

6.0 SIGNATURES

Bernard Barton Jr.

Name

OCIO/CIO - ITSC Chair

Title

Signature

Date

Name

COP/ITSC Member

Title

Signature

Date

APPENDIX A: DEFINITIONS, ABBREVIATIONS, AND ACRONYMS

Term	Definition
Access Management	The process responsible for allowing users to make use of IT services, data or other assets. Access management helps to protect the confidentiality, integrity and availability of assets by ensuring that only authorized users are able to access or modify them.
Asset	Any resource or capability. The assets of a service provider include anything that could contribute to the delivery of a service. Assets can be one of the following types: management, organization, process, knowledge, people, information, applications, infrastructure or financial capital.
Audio & Video Teleconferencing (VTC)	Audio & Video Teleconferencing Conferencing services provides technology and support to aid in the presentation and communication of relevant content and information to Library staff, and special events during normal business hours.
Availability	Availability of an IT service is determined by reliability, maintainability, serviceability, performance and security. Availability is usually calculated as a percentage. This calculation is often based on agreed service time and downtime.
Commodity IT	Core services which include: IT infrastructure (e.g., data centers, networks, workstations, and software applications,); and Enterprise IT services (e.g., e-Mail, web infrastructure, collaboration tools, security, identity and access management). Commodity IT is asset-oriented, while enterprise IT services may, at times, be more utility-oriented (defined as purchasing by usage rate).
Congress	Where an incident or task affects any congressional web site hosted on or in development by a LC system or team.
Database Administration	Supports Library databases/database applications by developing architecture, establishing standards, monitoring, managing, and addressing security related issues to databases.
Desktop Computing	This service provides support services for workstations and connected peripherals. Including print services which enable all computers connected to the LOC network, including staff laptops connected wirelessly, to print to large multi-function devices and small desktop printers.
DHS	Department of Homeland Security
Division/Office	Where an affected system or service supports a building/floor/partial floor/division/office.
Email	Enterprise email supporting internal, employee to employee(s), or external, employee to customer, vendors, or business partners.
Enhanced users	A small number of SU users, which have been permitted enhanced service due to their critical roles in the organization.
Enterprise	Where an incident or task affects a majority of Library users.

CIO

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Term	Definition
Fulfillment Group	The assigned team for Service Requests.
Hosting Services	This service provides support services internal to LOC environment comprising of the following: <ul style="list-style-type: none"> • Application • Database • Server • Storage • Infrastructure
Impact	Impact is a measure of the extent of perceived effect to systems or users and the potential damage to the organization before the incident or ticket is resolved.
Individual	Where the requestor is a single user.
Information Security Management	This service provides the protection of the Library information and information structure assets against the risk of loss, misuse, disclosure or damage. Develops, implements, and manages the controls that ensure that the Library is managing these risks.
Internet (ISP)	Services provide secure network connectivity to the Internet.
LOC	Library of Congress
Messaging & Collaboration	This service provides tools and capabilities that allow users to communicate and collaborate. This includes systems such as (e.g., SharePoint, Instant Messaging and GroupWise).
Mission Services	Mission Services are core purpose and functional capabilities of the Federal Government; such as disaster response, food safety, and national defense and employment services. Some Mission Services may have a single Federal organization focused on providing that service, while other mission services have multiple Federal organizations providing parts of a service. This may be due to statute, budget or other unique capabilities an agency may have developed.
Mobile Devices	Devices such as iPhones, Androids, and tablets. These devices will be either validated (meets security requirements and has undergone the assurance process defined by IT Security) or non-validated (does not meet the security requirements and/or has not undergone the assurance process defined by IT Security).
MOU	Memorandum of Understanding - A MOU is a formal agreement between the CIO and a SU. MOUs shall be used by the CIO as follow-on documents to the baseline SLA for the purpose of defining new or expanded services which are either not defined within the baseline SLA or which need to be redefined.
Non - Routine Tasks	Consists of long term tasks that are not Projects and are not routing tasks which may require 1 to 6 months to complete.
Normal Business Hours	The time period when a particular IT service is available from the OCIO Service Desk. Services will be provided between the hours of 7:00 a.m. and 5:00 p.m., Monday through Friday. (*Note: See Service Desk)
CIO	Chief Information Officer - CIO ensures the effective delivery of information technology resources and services in support of the Library's mission, functions, and activities.

CIO

SERVICE LEVEL AGREEMENT

Term	Definition
Priority	The measure of response expected from a Fulfillment Group or incident management team. Allowed response times are measured in minutes, hours and days.
P1	Priority 1- During a P1 incident the CIO will, within 15 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and delivered to the Public Affairs Office for distribution. Within 4 working hours the CIO will resolve the incident.
P2	During a P2 incident the CIO will, within 30 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and delivered to the Public Affairs Office for distribution. Within 8 working hours the CIO will resolve the incident. Enhanced User Service Requests will be assigned a P2 priority. Where an Enhanced User request is added to a Fulfillment Group queue the request will be treated as first in queue and fulfilled with the least delay.
P3	Routine requests will be assigned this priority level except for Enhanced User requests. P3 requests will be placed in queue and fulfilled in turn (FIFO) by a Fulfillment Group(s). The Fulfillment Group(s) will respond to the request within 4 working hours and resolve the request within 5 days. Use this priority where an incident has occurred which does not have an immediate operational impact or where a workaround is available to the user.
P4	A low priority request that does not immediately impact the ability for a person or team to complete their assigned tasks. P4 requests will be acknowledged within one day and will be resolved within 10 business days.
P5	Assign requests received from Project Teams to this category. The Project Team will establish the maximum time for fulfillment with the Fulfillment Group (s). The Fulfillment Group (s) will have 8 working hours to review the request and respond to the Project Team and 30 days to resolve the request. WCC Change Request Forms (CRF) for software and hardware will be assigned to this priority. All requests will be fulfilled by the requested or agreed upon date.
P6	Non-routine tasks which have extended completion times will be assigned this priority.
Priority Matrix	The Priority Matrix establishes categories of urgency and acceptable response times for a given incident or Service Request.
Processes	Routine Service Requests which require multiple steps or an extended period to fulfill which do not directly affect a specific user. An example would include a change request for software to be approved which requires an extended amount of time to fulfill due to the number of steps and groups involved.
Project Support Tasks	Service Requests originating from a Project Team. To be used where a Project Team requires support from a Fulfillment Group

Term	Definition
	outside the Project Team.
Public	Where the system or service is commonly available to the general public.
Resolution Time	The measure of time an incident or Service Request can remain in a non-resolved status before an SLA Breach occurs.
Response Time	How long a Fulfillment Group or incident management team has to review a ticket and provide a response.
Service	A means of delivering value to customers by facilitating outcomes customers want to achieve without the ownership of specific costs and risks.
Service Desk	The single point of contact between the service provider and the users. The Help Desk will answer phone calls and email from our LC End Users, 24 hours a day, and 363 days a year, to open trouble tickets. The Help Desk is closed on the two holidays July 4th and Christmas. Work on tickets opened after hours and on weekends or holidays will begin at 7:00 AM the next business day.
Service Desk Catalogue	A structured document with information about all live IT services, including those available for deployment. The service catalogue is part of the service portfolio and contains information about two type of IT service: customer-facing services that are visible to the SUs; and supporting services required by the service provider to deliver customer-facing services.
Service Level Agreement (SLA)	An SLA is a document that establishes an agreement between an IT service provider and a client to describe IT services, specify the responsibilities of both parties, and document the expected service-level targets.
SLA Breach	Exceeding the maximum time frame required for the effective response or the timeframe required for the ticket solution in accordance with the terms and level of the ticket solution in compliance with its categorization in the Priority Matrix.
Service Level Targets (SLT)	Service Level Targets (SLT) - SLTs are event-driven performance criteria which give context to measures and provide a mathematical basis to understand organizational performance.
Service Request	A request for a routine service has been submitted and will be routed to a Fulfillment Group for action. There are no users or systems experiencing an incident.
Service Unit (SU)	Library support business unit.
Significance	A term used to identify the different priority levels as a measure of importance to the organization.
Support Services	Support services are defined by the capabilities that support common business functions performed by nearly all Federal organizations. These include functional areas such as budgeting, financial, human resources, asset, and property and acquisition management.
Telecommunications	This service provides solutions that support the LOC telecommunications needs. This includes the following: • Voice: Support for telephony tools, hardware, software, and voice

Term	Definition
	<p>data infrastructure</p> <ul style="list-style-type: none"> • Data: Support for tools, hardware, and infrastructure that supports data transmission. • Facilities: Oversight support for the Library data center, to include power, location, and cabling.
Telework/COOP - Laptops	This service provides support for an employee to perform work, during any part of regular, paid hours, at an approved alternate worksite (e.g. home or telework center).
Urgency	The categorization of how quickly an incident or ticket needs to be resolved.
Wireless	<p>Services provide secure network connectivity to the LOC wireless network for staff and the general public.</p> <p>In Building Wireless: The cellular network within the confines of LOC buildings providing staff and visitors access to external cellular carrier networks, both data and voice.</p> <p>Wi-Fi: The LOC wireless local area network offered to staff and visitors to provide data connectivity to the internet. LOC Guest is the current LOC Wi-Fi.</p>
Work Degradation	Where an IT system continues to be useable but performs below normal operating levels. A system may be slow to respond to user requests or part of a system may fail entirely with other parts continuing to function.
Work Stoppage	An interruption of IT services or access to one or more systems which results in one or more users not being able to perform routine assigned tasks which they are normally able to perform.

APPENDIX B: ENTERPRISE-WIDE APPLICATIONS

Enterprise Wide Applications	
American Memory	
Application Express (APEX)/Oracle Middleware	
CENS	
Central Contractor Registration Connector (CCRC)	
Chronicle America (ChronAm)	
ColdFusion Middleware	
Confluence	
Congress.gov	
Consolidated Staff Directory (CSD)	
Content Transfer Services (CTS)	
Control-M (AHE)	
Correspondence Control Management (CCM) Enterprise	
EmpowHR	
Encoded Archival Descriptions (EAD) Finding Aids	
Facility and Asset Management Enterprise (FAME)	
Facility Automated Services Tracking System (FAST)	
Financial Reporting System (FRS)	
FootPrints (OCIO)	
Geospatial Hosting Environment (GHE)	
GForge	
Handle Server	
Hiring Management Enterprise Suite (HMES)	
Integrated Library System (ILS)	
Internal Control Program (ICP) Manager	
LC Budget System	
Momentum Financial Management System (FMS)	
Online Learning Center (OLC)	
Parking Program Management System (PPMS)	

Enterprise Wide Applications	
Payroll Analysis Module (PAM)	
Performing Arts Encyclopedia	
Prints & Photographs Online Catalog (PPOC)	
Raiser's Edge	
SkillPort	
Strategic Management System (eLCplans)	
Teamsite	
THOMAS	
Web Time & Attendance (WebTA)	
Webcast	
Wiki	
WordPress	

The Commodity IT Services being provided by CIO does not include these services listed below:

[illegible]

C/O

SERVICE LEVEL AGREEMENT

APPENDIX D: COP PRIORITY MATRIX ENHANCED USER LIST

The C/O permits customers to designate a small number of their users, Enhanced Users, to have enhanced service due to their critical roles in the organization. Enhanced users' incidents are labeled as such to allow them to be handled judiciously to insure the best possible response and resolution times for the incident priority setting and available resources

Organization - Division/Office	Name	Phone	E-Mail Address
Register of Copyrights	Maria Pallante	(202) 707-8359	mpall@loc.gov
Special Advisor to the Register of Copyrights	Catherine Rowland	(202) 707-0956	crowland@loc.gov
Special Assistant to the Register	Syreeta Swann	(202) 707-8052	sswa@loc.gov
General Counsel and Associate Register of Copyrights	Jacqueline Charlesworth	(202) 707-8772	jcharlesworth@loc.gov
Deputy General Counsel	Sy Damle	(202) 707-3572	sdam@loc.gov
Director of Policy & International Affairs and Associate Register of Copyrights	Karyn Temple Claggett	(202) 707-7845	kac@loc.gov
Deputy Director of Policy & International Affairs	Maria Strong	(202) 707-8390	mstrong@loc.gov
Director of Registration Policy & Practices and Associate Register of Copyrights	Robert Kasunic	(202) 707-0229	rkas@loc.gov
Deputy Director of Registration Policy & Practices	Erik Bertin	(202) 707-7566	ebertin@loc.gov
Director of Public Information & Education and Associate Register of Copyrights	William Roberts	(202) 707-8391	wroberts@loc.gov
Director of Office of Public Records and Repositories	Elizabeth Scheffler	(202) 707-6042	esch@loc.gov
Chief of Operations, Copyright	David Christopher	(202) 707-8825	dchr@loc.gov
Chief Information Officer, Copyright	Douglas Ament	(202) 707-5440	dament@loc.gov
Director, Copyright Technology Office	Ricardo Farraj-Fejoo	(202) 707-0110	rfa@loc.gov
Chief Copyright Royalty Judge (CRJ) *Note: CRJ is not a part of the Copyright Office and any IT-related questions from Judge Barnett should be handled by ITS and not forwarded to COP for response.	Suzanne Barnett	(202) 707-8386	suba@loc.gov

Curtiss, Dan

From: Curtiss, Dan
Sent: Wednesday, October 28, 2015 1:00 PM
To: Banks, Al
Cc: Curtiss, Dan
Subject: SLA example

Al,
 I ride the train with a guy who does IT over at one of the USDA agencies. I asked him about SLAs and who the Library could talk to. He sent the following contact that you can call to get a copy of their SLA and maybe some lessons learned.

Scott M Peterson
 USDA-APHIS/MRPBS
 ITD Enterprise Operations
 Onsite Tech Support Services
 Alpha Team Supervisor
 100 North Sixth Street
 Suite 610C room 6W-02
 Butler Square Building
 Minneapolis, MN 55403
Scott.M.Peterson@aphis.usda.gov
 612-336-3376 (Work)
 612-702-6175 (Cell)

Daniel Curtiss - Chief, Technical Operations
Copyright Technology Office
 Desk 202-707-0018
 Mobile 202-297-3841
dcurtiss@loc.gov
www.copyright.gov

Ament, Douglas

From: Ament, Douglas
Sent: Wednesday, August 10, 2016 12:08 PM
To: Barton, Bud
Subject: Latest Draft SLA - 081016
Attachments: Copyright SLA Redline 2016.8.10.docx

Bud,

Please find attached the latest draft SLA which includes Copyright Office edits for your review. The "Redline" version clearly shows all of our proposed edits which hopefully makes it a little easier to review. Let me know if you have any questions.

Thanks,

Doug

*Douglas Ament
Chief Information Officer, US Copyright Office
101 Independence Ave, SE, LM-403
Washington, DC 20540
202-707-5440 – Office
202-413-4656 – Mobile
dament@loc.gov*

Service Level Agreement (SLA)

BETWEEN

THE UNITED STATES COPYRIGHT OFFICE (COP)

AND

THE LIBRARY OF CONGRESS, OFFICE OF THE CHIEF
INFORMATION OFFICER (CIOOCIO)

For the period [October 1, 2015 - September 30, 2016]

CJIS/SCO DRAFT

SERVICE LEVEL AGREEMENT

DOCUMENT INFORMATION AND APPROVALS

VERSION HISTORY			
Version #	Date	Revised By	Reason for change
0.1	4/24/15	CIO	Initial draft
0.2	6/30/15	CIO	Revisions suggested by Interim CIO
0.3	7/9/15	CIO	Revisions suggested by Deputy CIO & SUs
0.4	7/14/15	CIO	Revisions suggested by Interim CIO, Deputy CIO, and SUs.
0.5	8/20/15	CIO	Revisions suggested by Interim CIO, Deputy CIO, based on questions and comments submitted by SU after their review of the Draft SLA document.
0.6	8/24/15	CIO	Revisions suggested by Deputy CIO.
0.7	9/28/15	CIO	Revisions suggested by Deputy CIO & SUs.
1.0	9/28/15	CIO	Approved Revisions suggested by OCIO
1.1	8/19/2016	COP	Revisions suggested by COP

DOCUMENT APPROVALS			
Approver Name	Project Role	Signature/Electronic Approval	Date
Bernard Barton Jr.	Project Sponsor	Approved	8/9/28/15
Judith Conklin	Project Sponsor	Approved	8/9/28/15
Al Banks	OCIO Responsible Manager	Approved	8/9/28/15

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1.0 INTRODUCTION

1.1 Overview of CIO

The Chief Information Officer (CIO) ensures the effective delivery of information technology resources and services in support of the Library's mission, functions, and activities. The mission of CIO is to provide reliable and effective information systems and telecommunications services to the Library in support of its efforts to serve Congress and the nation, manage and provide access to its collections, and plan, design, and implement systems that define the future digital library and information infrastructure.

1.2 SCOPE OF AGREEMENT

This is a Service Level Agreement (SLA) between CIO and the Library of Congress (LOC) United States Copyright Office (COP) for the period [October 1, 2015 through September 30, 2016]. The purpose of this SLA is to establish baseline support levels for Commodity IT services that are provided by CIO to COP.

This SLA is binding upon CIO and COP. The CIO and COP may change this agreement when widespread service-affecting issues arise, when new technologies develop or adopted, or requirements change. All modifications must be agreed upon by both the CIO and COP. The CIO and COP agree to engage in good-faith efforts to resolve any problems which may arise.

As needed and appropriate, separate Memoranda of AgreementUnderstanding (MOUs) will establish support levels for specialized CIO support not covered in this agreement.

Note: In the interest of time, and the approaching September 30th deadline, the Acting Deputy CIO and the SLA Project Team has requested that the SLA let the SLA document go forward and O/CIO agreed to address all of the SLA concerns as soon as possible, after the September 30th deadline, to provide more details regarding the Commodity IT support described in this agreement.

The LOC and COP both acknowledge that this SLA, while a good starting point to document the IT support levels currently provided by the CIO to COP, could benefit from additional detail related to the current provision of services from the CIO to COP and related costing, and will additionally require reevaluation upon the commencement of Copyright IT modernization activities, as explained further in Appendix E.

1.3 ASSUMPTIONS

This agreement relies on certain operational assumptions. Should any of these assumptions change, then the CIO and COP will negotiate and agree upon any necessary adjustments to this agreement.

- ♦ Support levels established by this agreement will be provided.
- ♦ All IT-related mandates, such as regulatory or Congressional, have been accounted for in this SLA.

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1.4 OUTSIDE CIO'S CONTROL

The services provided under this SLA may be temporarily suspended in part or in full by the CIO or other LOC or U.S. Government officials in the instance of unplanned, widespread, service-affecting issues. The services will be considered to be in "reduced service mode" in the instance of service-affecting issues which render the entire LOC enterprise unusable or severely degraded, these may include:

- ◆ Certain Department of Homeland Security (DHS) alerts;
- ◆ Severe weather or other natural occurrences like earthquakes, asteroid strikes, etc. which affect wide-area communication links, or utility services or prevent technicians from reaching their workplaces;
- ◆ A Government shutdown, declared by the Office of Personnel Management;
- ◆ Certain security threats and attacks; and,
- ◆ Scheduled life & safety testing.

Restoration of services covered under this SLA may be subject to factors outside of the CIO's control. These may include vendor lead time (for purchases or vendor-provided repairs) and service provider lead time.

Unless specifically stated otherwise, OCIO will pay the cost of the commodity level service offerings pending availability of funds.

2.0 IT SERVICES

The services listed here are standard, meaning that these services are provided at no cost to COP.

As noted by the Federal Information Technology Shared Services Strategy¹, and the Federal IT Shared Services Implementation Guide², there are three general categories of shared services in the Federal Government: commodity IT, support, and mission services, as described below:

1. **Commodity IT Services** - As described in OMB Memorandum M-11-29,³ examples of commodity IT shared services opportunities include:

- IT infrastructure (e.g., data centers, networks, workstations, and core software); and,
- Enterprise IT services (e.g., ~~e-Mail~~email, web infrastructure, collaboration tools, security, identity and access management). Commodity IT is asset-

¹ Federal Information Technology Shared Services Strategy, Office of Management and Budget (OMB), Office of E-Government and Information Technology, May 2, 2012.

² Federal Information Technology Shared Services Implementation Guide, CIO Council, April 13, 2013.

³ Office of Management and Budget (OMB), M-11-29, Chief Information Officer Authorities, August 8, 2011.

oriented, while enterprise IT services may, at times, be more utility-oriented (defined as purchasing by usage rate).

2. **Support Services** - Are defined by the capabilities that support common business functions performed by nearly all Federal organizations. These include functional areas such as budgeting, financial, human resources, asset, property, and acquisition management.

3. **Mission Services** - These are core purpose and functional capabilities of the Federal Government; such as disaster response, food safety, and national defense and employment services. Some Mission Services may have a single Federal organization focused on providing that service, while other mission services have multiple Federal organizations providing parts of a service. This may be due to statute, budget or other unique capabilities an agency may have developed.

The scope of this SLA ~~will cover~~ is limited to Commodity IT Services.

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SERVICE LEVEL AGREEMENT

2.1 COMMODITY IT SERVICES

The following tables contain the services within the scope of this SLA.

Service Name	Service Description	Availability	Service Level Target (SLT)
Access Management	The process responsible for allowing users to make use of IT services, data or other assets. Access management helps to protect the confidentiality, integrity and availability of assets by ensuring that only authorized users are able to access or modify them.	99% The Service Desk is closed on the two holidays, July 4th and December 25th.	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
1. Audio & Video Teleconferencing (VTC)	Audio & Video Teleconferencing services provides technology and support to aid in the presentation and communication of relevant content and information to Library staff, and special events.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
2. Database Administration	Supports Library databases/database applications by developing architecture, establishing standards, monitoring, managing, and addressing security related issues to databases.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
3. Email	Enterprise email supporting internal, employee to employee(s), or external, employee to customer, vendors, or business partners.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
4. Desktop Computing	This service provides support services for workstations and connected peripherals, including print services which enable all computers connected to the LOC network, to print to large multi-function devices and small desktop	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
5.			♦ Software Changes review and approval.

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CJUSCO DRAFT

SERVICE LEVEL AGREEMENT

	Service Name	Service Description	Availability	Service Level Target (SLT)
		printers. CORE software is included. COP is financially responsible for Non-CORE software acquisitions and associated maintenance cost. COP is financially responsible for desktop and network printer acquisitions. This service provides support services internal to LOC environment comprising the following: <ul style="list-style-type: none">ApplicationDatabaseServerStorageInfrastructure (e.g. CAPNET, DNS, VPN)		schedule is defined as P3 with in the Priority Matrix table.
6.	Hosting Services		99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
7.	Information Security Management	This service provides the protection of the Library data and digital information and information structure assets against the risk of loss, misuse, disclosure or damage, including through virus protection, IDS, firewalls, SOC services, patching, and other necessary services. Developers implements, and manages the controls that ensure that the Library is managing these risks. Services provide secure network connectivity to the Internet.	99%	As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
8.	Internet (ISP)		99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
9.	Messaging & Collaboration	This service provides tools and capabilities that allow users to communicate and collaborate. This includes systems such as: SharePoint, Instant Messaging, and GroupWise.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
10.	Mobile Devices	This service provides the mobile devices and capabilities that allow users to access Library technology resources. These are devices such as iPhones, Androids, and tablets. Only	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)

SLP 2.2.e.

CIJUSCO DRAFT		SERVICE LEVEL AGREEMENT		
	Service Name	Service Description	Availability	Service Level Target (SLT)
		validated (meets security requirements and has undergone the assurance process defined by IT Security) devices will be supported in this service category. CCOP is financially responsible for the mobile devices and service plans. This service provides solutions that support the LOC telecommunications needs. This includes the following:		
11.	Telecommunications	<ul style="list-style-type: none"> ♦ Voice: Support for telephony tools, hardware, software, and voice data infrastructure ♦ Data: Support for tools, hardware, and infrastructure that supports data transmission. ♦ Facilities: Oversight support for the Library data centers, to include power, location, and cabling. 	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
12.	Telework/COOP - Laptops	This service provides support for an employee to perform work, during any part of regular, paid hours, at an approved alternate worksite (e.g., home or telework center). Financial CCOP is financially responsible for laptop acquisitions.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
13.	Wireless	Services provide secure network connectivity to the LOC wireless network for staff and the general public. ♦ In Building Wireless: The cellular network within the confines of LOC buildings providing staff and visitors access to external cellular carrier networks, both data and voice.	99%	♦ As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)

	Service Name	Service Description	Availability	Service Level Target (SLT)
		<ul style="list-style-type: none">Wi-Fi: The LOC wireless local area network offered to staff and visitors to provide data connectivity to the internet and access to collections. LOC Guest is the current LOC Wi-Fi.		
14.	Service Desk (ITS Help Desk)	<p>The Service Desk is designed to be the single point of contact for users to request additional services or report issues with existing services to IT.</p> <p><i>Copyright users contact the Copyright Help Desk. Issues which are beyond the scope of CDP's responsibility are referred to the ITS Service Desk</i></p> <p><i>(*Note: To the extent users contact the Service Desk, they will be supported)</i></p>	99% The Service Desk is closed on the two holidays, July 4th and December 25 th .	<ul style="list-style-type: none">As defined by Service Desk Catalogue (*Note: See Table Below - Priority Matrix)
15.	Workstation Configuration Change management	Management of workstation applications to ensure a secure and functional workstation environment and deployment to staff and public workstations.	30 days	<ul style="list-style-type: none">Processing of new and changed workstation applications within 2 weeks. Deployment to relevant workstations must be accomplished seamlessly, as applications are approved.

Priority Matrix

Urgency	Impact					
	Enterprise	Congress	Public	Service Unit	Division/Office	Enhanced User
Work Stoppage	P1	P1	P1	P1	P2	P2
Work Degradation	P1	P1	P1	P2	P2	P2
Service Request	P3	P3	P3	P3	P3	P3
Processes	P3	P3	P4	P4	P4	P4
Project Support Tasks	P5	P4	P5	P5	P5	P5
Non - Routine Tasks	P6	P6	P6	P6	P6	P6

Priority	Significance	Response Time	Resolution Time
P1	Critical	15 Minutes	4 Hours
P2	High	30 Minutes	1 Day
P3	Standard	4 Hour	5 Days
P4	Low	1 Day	10 Days
P5	Routine Process	1 Day	30 Days
P6	Non - Routine Tasks	1 Day	6 Months

Priority Matrix

Priority Matrix - The Priority Matrix establishes categories of urgency and acceptable response times for a given incident or Service Request.

Incident - An unplanned interruption to an IT service.

Priority - The measure of response expected from a Fulfillment Group or incident management team. Allowed response times are measured in minutes, hours and days.

- ♦ P1 - During a P1 incident the CIO will, within 15 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and delivered to the Public Affairs Office for distribution. Within 4 working hours the CIO will resolve the incident.
- ♦ P2 - During a P2 incident the CIO will, within 30 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and delivered to the Public Affairs Office for distribution. Within 8 working hours the CIO will resolve the incident.
 - Enhanced User Requests will be assigned a P2 priority. Where an Enhanced User request is added to a Fulfillment Group queue the request will be treated as first in queue and fulfilled with the least delay.
- ♦ P3 - Routine requests will be assigned this priority level except for Enhanced User requests. P3 requests will be placed in queue and fulfilled in turn (FIFO) by a Fulfillment Group(s). The Fulfillment Group(s) will respond to the request within 4 working hours and resolve the request within 5 days.
 - Use this priority where an incident has occurred which does not have an immediate operational impact or where a workaround is available to the user.
- ♦ P4 - A low priority request that does not immediately impact the ability for a person or team to complete their assigned tasks. P4 requests will be acknowledged within one day and will be resolved within 10 business days.
- ♦ P5 - Assign requests received from Project Teams to this category. The Project Team will establish the maximum time for fulfillment with the Fulfillment Group (s). The Fulfillment Group (s) will have 8 working hours to review the request and respond to the Project Team and 30 days to resolve the request. WCC Change Request Forms (CRF) for software and hardware will be assigned to this priority. All requests will be fulfilled by the requested or agreed upon date.
- ♦ P6 - Non-routine tasks which have extended completion times will be assigned this priority.

Significance – A term used to identify the different priority levels as a measure of importance to the organization.

Response Time – How long a Fulfillment Group or incident management team has to review a ticket and begin a response.

Resolution Time – The measure of time an incident or Service Request can remain in a non-resolved status before an SLA Breach occurs.

Impact – Is a measure of the extent of perceived effect to systems or users and the potential damage to the organization before the incident or ticket is resolved.

- ♦ Enterprise – Where an incident or task affects a majority of Library users.
- ♦ Congress – Where an incident or task affects any congressional web site hosted on or in development by a LC system or team.
- ♦ Public – Where the system or service is commonly available to the general public.
- ♦ Service Unit – Where an affected system or service supports all or the greater part of a Service Unit.
- ♦ Division/Office – Where an affected system or service supports a building/floor/partial floor/division/office.
- ♦ Enhance User- Where the requestor or the requestor's assistant appears on the approved Enhanced User list.
- ♦ Individual – Where the requestor is a single user.

Urgency – Is a means for categorizing how quickly an incident or ticket needs to be resolved.

- ♦ **Work Stoppage** – An interruption of IT services or access to one or more systems which results in one or more users not being able to perform routine assigned tasks which they are normally able to perform.
- ♦ **Work Degradation** – Where an IT system continues to be useable but performs below normal operating levels. A system may be slow to respond to user requests or part of a system may fail entirely with other parts continuing to function.
- ♦ **Service Request** – A request for a routine service has been submitted and will be routed to a Fulfillment Group for action. There are no users or systems experiencing an incident.
- ♦ **Processes** – For routine Service Requests which require multiple steps or an extended period to fulfill which do not directly affect a specific user. An example would include a change request for software to be approved which requires an extended amount of time to fulfill due to the number of steps and groups involved.
- ♦ **Project Support Tasks** – For Service Requests originating from a Project Team. To be used where a Project Team requires support from a Fulfillment Group outside the Project Team.
- ♦ **Non - Routine Tasks** – For long term tasks that are not Projects and are not routine tasks which may require 1 to 6 months to complete.

3.0 SYSTEMS MAINTENANCE & POLICY

The following events may impact service availability:

- **Planned maintenance windows** – CIO is required to update and maintain the technical infrastructure on a regular basis per Maintenance Policy dated July 1, 2013. The agreed change windows for this work are:

- ◆ Maintenance activity that is expected to take less than 4 hours will take place on the first and third Tuesday of each month beginning at 9:00pm Tuesday and ending by 3:00am on Wednesday;
- ◆ Maintenance activity that is expected to take less than 12 hours to complete will take place on the second and fourth Sunday of each month beginning at 6:00am and ending by 6:00pm the same day;
- ◆ Maintenance activities will be suspended for certain periods during which maintenance may disrupt special events that require uninterrupted service, (e.g., when Congressional activities are in progress, the National Book Festival, End of Fiscal Year activities September 30th). The CIO and COP will identify these events and coordinate maintenance accordingly; and
- ◆ **Emergency system maintenance** – From time to time critical maintenance, such as urgent security patches may need to be performed within business hours which may impact on service availability. Staff will be notified and all attempts will be made to minimize the business impact of the changes.

Maintenance windows are not included in the availability column of the SLA.

4.0 ROLES AND RESPONSIBILITIES

4.1 THE CIO RESPONSIBILITIES

CIO has the following general responsibilities under this agreement:

- ◆ Conduct business in a courteous and professional manner with clients;
- ◆ Meet response times associated with the priority assigned to client issues;
- ◆ Ensure staff are appropriately trained and currency of training is maintained;
- ◆ Maintain adequate escalation procedures with the Priority Matrix table;
- ◆ Coordinate with COP on any maintenance that may impact the availability of COP systems even if it is during the maintenance windows;
- ◆ Log and track all client requests for service through the Service Desk System
- ◆ Maintain and keep current all offered services;
- ◆ Provide proper communication and notice of changes in services; and
- ◆ Monitor and track all SLAs and report out results.

4.2 THE COP RESPONSIBILITIES

COP has the following general responsibilities under this agreement:

- ♦ Be familiar with the CIO policies and procedures for governing the acceptable use of information and communication technologies and adhere to same;
- ♦ Follow appropriate notification and escalation procedures;
- ♦ Maintain a line-of-business, or mission systems service unit help desk that serves as the primary contact point for COP users. The help desk specifically provides tier-1 and tier-2 IT mission systems specific support and only forwards to ITS Service Desk requests and incidents that involve infrastructure or issues that are beyond the scope of COP responsibility. This arrangement does not preclude COP users from directly requesting infrastructure support from the ITS Service Desk.
- ♦ Determine appropriate support issue priority (P1-P6) in cooperation with the Service Desk;
- ♦ Be willing and available to provide critical information within 4 hours of logging a request with the Service Desk for any urgent matters.
- ♦ Notify the CIO Office of COP business changes that impact the relevance of SLAs.

4.3 ESCALATION PATH

It is important to the success of the relationship between the OCIO and COP that both parties understand the escalation chain in the event that there is an SLA Breach, or a reported Service Incident, and agreement cannot be reached as to the root cause or resolution. The following escalation path should be followed:

1. Office of the Chief Information Officer, Deputy Chief Information Officer (DCIO)
2. Office of the Chief Information Officer (OCIO), Chief Information Officer (CIO)
3. Chief Operating Officer (COO)

5.0 PERIODIC REVIEW PROCESS

This SLA is a mutually endorsed document and will be periodically reviewed and changed when the following events occur:

- ◆ The technological capability has been drastically reduced.
- ◆ -Funds availability has been drastically changed.
- ◆ Unscheduled service disruptions have greatly altered information system processes.

This Service Level Agreement will be reviewed semi-annually in fiscal 2016 and annually thereafter to capture any expected changes in commodity IT service offerings and service levels. In addition, the SLA will be reviewed and changed as needed to account for and accommodate Copyright Office modernization efforts, as discussed in Appendix E.

Contents of this document may be amended as required, provided mutual agreement is obtained and communicated to all affected parties. The Document Owner will incorporate all subsequent revisions and obtain mutual agreements / approvals as required.

Document Owner: OCIO

Review Period: [October 1, 2015 ~ September 30, 2016]

Previous Review Date: N/A

Next Review Date:

6.0 SIGNATURES

Bernard Barton Jr.	OCIO/CIO - ITSC Chair
Name	Title
Signature	Date
	COP/ITSC Member
Name	Title
Signature	Date

APPENDIX A: DEFINITIONS, ABBREVIATIONS, AND ACRONYMS

Term	Definition
Access Management	The process responsible for allowing users to make use of IT services, data or other assets. Access management helps to protect the confidentiality, integrity and availability of assets by ensuring that only authorized users are able to access or modify them.
Asset	Any resource or capability. The assets of a service provider include anything that could contribute to the delivery of a service. Assets can be one of the following types: management, organization, process, knowledge, people, information, applications, infrastructure or financial capital.
Audio & Video Teleconferencing (VTC)	Audio & Video Teleconferencing Conferencing services provides technology and support to aid in the presentation and communication of relevant content and information to Library staff, and special events during normal business hours.
Availability	Availability of an IT service is determined by reliability, maintainability, serviceability, performance and security. Availability is usually calculated as a percentage. This calculation is often based on agreed service time and downtime.
Commodity IT	Core services which include: IT infrastructure (e.g., data centers, networks, workstations, and software applications); and Enterprise IT services (e.g., e-Mail, web infrastructure, collaboration tools, security, identity and access management). Commodity IT is asset-oriented, while enterprise IT services may, at times, be more utility-oriented (defined as purchasing by usage rate).
Congress	Where an incident or task affects any congressional web site hosted on or in development by a LC system or team.
Database Administration	Supports Library databases/database applications by developing architecture, establishing standards, monitoring, managing, and addressing security related issues to databases.
Desktop Computing	This service provides support services for workstations and connected peripherals. Including print services which enable all computers connected to the LOC network, including staff laptops connected wirelessly, to print to large multi-function devices and small desktop printers.
DHS	Department of Homeland Security
Division/Office	Where an affected system or service supports a building/floor/partial floor/division/office.
Email	Enterprise email supporting internal, employee to employee(s), or external, employee to customer, vendors, or business partners.
Enhanced users	A small number of SLU users, which have been permitted enhanced service due to their critical roles in the organization.
Enterprise	Where an incident or task affects a majority of Library users.

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CHOUSCO DRAFT		SERVICE LEVEL AGREEMENT
Term	Definition	
Fulfillment Group	The assigned team for Service Requests, also referred to as an "incident management team".	
Hosting Services	This service provides support services internal to LOC environment comprising of the following: <ul style="list-style-type: none">▪ Application▪ Database▪ Server▪ Storage▪ Infrastructure	
Impact	Impact is a measure of the extent of perceived effect to systems or users and the potential damage to the organization before the incident or ticket is resolved.	
Individual	Where the requestor is a single user.	
Information Security Management	This service provides the protection of the Library information and information structure assets against the risk of loss, misuse, disclosure or damage. Develops, implements, and manages the controls that ensure that the Library is managing these risks.	
Internet (ISP)	Services provide secure network connectivity to the Internet.	
LOC	Library of Congress	
Messaging & Collaboration	This service provides tools and capabilities that allow users to communicate and collaborate. This includes systems such as (e.g., SharePoint, Instant Messaging and GroupWise).	
Mission Services	Mission Services are core purpose and functional capabilities of the Federal Government; such as disaster response, food safety, and national defense and employment services. Some Mission Services may have a single Federal organization focused on providing that service, while other mission services have multiple Federal organizations providing parts of a service. This may be due to statute, budget or other unique capabilities an agency may have developed.	
Mobile Devices	Devices such as iPhones, Androids, and tablets. These devices will be either validated (meets security requirements and has undergone the assurance process defined by IT Security) or non-validated (does not meet the security requirements and/or has not undergone the assurance process defined by IT Security).	
MOU	Memorandum of Understanding - A MOU is a formal agreement between the CIO and a SU. MOUs shall be used by the CIO as follow-on documents to the baseline SLA for the purpose of defining new or expanded services which are either not defined within the baseline SLA or which need to be redefined.	
Non – Routine Tasks	Consists of long term tasks that are not Projects and are not routing tasks which may require 1 to 6 months to complete.	
Normal Business Hours	The time period when a particular IT service is available from the OCIO Service Desk. Services will be provided between the hours of 7:00 a.m. and 5:00 p.m., Monday through Friday, EST. (*Note: See Service Desk)	
CIO	Chief Information Officer - CIO ensures the effective delivery of information technology resources and services in support of the	

CJOUSCO DRAFT		SERVICE LEVEL AGREEMENT	
Team	Definition		
	Library's mission, functions, and activities.		
Priority	The measure of response expected from a Fulfillment Group or incident management team. Allowed response times are measured in minutes, hours and days.		
P1	Priority 1- During a P1 incident the CIO will, within 15 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and delivered to the Public Affairs Office for distribution. Within 4 working hours the CIO will resolve the incident.		
P2	During a P2 incident the CIO will, within 30 minutes, mobilize the resources required to work the incident. Management will be informed and a PAO Announcement may be generated and delivered to the Public Affairs Office for distribution. Within 8 working hours the CIO will resolve the incident. Enhanced User Service Requests will be assigned a P2 priority. Where an Enhanced User request is added to a Fulfillment Group queue the request will be treated as first in queue and fulfilled with the least delay.		
P3	Routine requests will be assigned this priority level except for Enhanced User requests. P3 requests will be placed in queue and fulfilled in turn (FIFO) by a Fulfillment Group(s). The Fulfillment Group(s) will respond to the request within 4 working hours and resolve the request within 5 days. Use this priority where an incident has occurred which does not have an immediate operational impact or where a workaround is available to the user.		
P4	A low priority request that does not immediately impact the ability for a person or team to complete their assigned tasks. P4 requests will be acknowledged within one day and will be resolved within 10 business days.		
P5	Assign requests received from Project Teams to this category. The Project Team will establish the maximum time for fulfillment with the Fulfillment Group (s). The Fulfillment Group (s) will have 8 working hours to review the request and respond to the Project Team and 30 days to resolve the request. WCC Change Request Forms (CRF) for software and hardware will be assigned to this priority. All requests will be fulfilled by the requested or agreed upon date.		
P6	Non-routine tasks which have extended completion times will be assigned this priority.		
Priority Matrix	The Priority Matrix establishes categories of urgency and acceptable response times for a given incident or Service Request.		
Processes	Routine Service Requests which require multiple steps or an extended period to fulfill which do not directly affect a specific user. An example would include a change request for software to be approved which requires an extended amount of time to fulfill due to the number of steps and groups involved.		
Project Support Tasks	Service Requests originating from a Project Team. To be used		

CIO/USCO DRAFT		SERVICE LEVEL AGREEMENT	
Term	Definition		
	where a Project Team requires support from a Fulfillment Group outside the Project Team.		
Public	Where the system or service is commonly available to the general public.		
Resolution Time	The measure of time an incident or Service Request can remain in a non-resolved status before an SLA Breach occurs.		
Response Time	How long a Fulfillment Group or incident management team has to review a ticket and provide a response.		
Service	A means of delivering value to customers by facilitating outcomes customers want to achieve without the ownership of specific costs and risks.		
Service Desk	The single point of contact between the service provider and the users. The Help Desk will answer phone calls and email from our LC End Users, 24 hours a day, and 363 days a year, to open trouble tickets. The Help Desk is closed on the two holidays July 4th and Christmas. Work on tickets opened after hours and on weekends or holidays will begin at 7:00 AM the next business day.		
Service Desk Catalogue	A structured document with information about all live IT services, including those available for deployment. The service catalogue is part of the service portfolio and contains information about two type of IT service: customer-facing services that are visible to the SUs; and supporting services required by the service provider to deliver customer-facing services.		
Service Level Agreement (SLA)	An SLA is a document that establishes an agreement between an IT service provider and a client to describe IT services, specify the responsibilities of both parties, and document the expected service-level targets.		
SLA Breach	Exceeding the maximum time frame required for the effective response or the timeframe required for the ticket solution in accordance with the terms and level of the ticket solution in compliance with its categorization in the Priority Matrix.		
Service Level Targets (SLT)	Service Level Targets (SLT) - SLTs are event-driven performance criteria which give context to measures and provide a mathematical basis to understand organizational performance.		
Service Request	A request for a routine service has been submitted and will be routed to a Fulfillment Group for action. There are no users or systems experiencing an incident.		
Service Unit (SU)	Library support business unit.		
Significance	A term used to identify the different priority levels as a measure of importance to the organization.		
Support Services	Support services are defined by the capabilities that support common business functions performed by nearly all Federal organizations. These include functional areas such as budgeting, financial, human resources, asset, and property and acquisition management.		
Telecommunications	This service provides solutions that support the LOC telecommunications needs. This includes the following:		

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APPENDIX B: ENTERPRISE-WIDE APPLICATIONS

Enterprise Wide Applications
American Memory
Application Express (APEX)/Oracle Middleware
CENS
Central Contractor Registration Connector (CCRC)
Chronicling America (ChronAm)
ColdFusion Middleware
Confluence
Congress.gov
Consolidated Staff Directory (CSD)
Content Transfer Services (CTS)
Control-M (AHE)
Correspondence Control Management (CCM) Enterprise
EmpowHR
Encoded Archival Descriptions (EAD) Finding Aids
Facility and Asset Management Enterprise (FAME)
Facility Automated Services Tracking System (FAST)
Financial Reporting System (FRS)
FootPrints (OCIO)
Geospatial Hosting Environment (GHE)
GForge
Handle Server
Hiring Management Enterprise Suite (HMES)
Integrated Library System (ILS)
Internal Control Program (ICP) Manager
LC Budget System
Momentum Financial Management System (FMS)
Online Learning Center (OLC)
Parking Program Management System (PPMS)

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Enterprise Wide Application	
Payroll Analysis Module (PAM)	
Performing Arts Encyclopedia	
Prints & Photographs Online Catalog (PPOC)	
Raiser's Edge	
SkillPort	
Strategic Management System (el.Gplans)	
Teamsite	
THOMAS	
Web Time & Attendance (WebTA)	
Webcast	
Wiki	
WordPress	

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The Commodity IT Services being provided by CIO does not include these services listed below:

[illegible]

APPENDIX D: COP PRIORITY MATRIX ENHANCED USER LIST

The CJO permits customers to designate a small number of their users, Enhanced Users, to have enhanced service due to their critical roles in the organization. Enhanced users' incidents are labeled as such to allow them to be handled judiciously to insure the best possible response and resolution times for the incident priority setting and available resources

Organization - Division/Office	Name	Phone	E-Mail Address
Register of Copyrights	Maria Pallante	(202) 707-8359	mpall@loc.govrupall@loc.gov
Special Advisor to the Register of Copyrights	Catherine Rowland	(202) 707-0956	crowland@loc.gov
Special Advisor to the Register of Copyrights	Stephanie Moore	(202) 707-3136	smao@loc.gov
Special Assistant to the Register	Syreeta Swann	(202) 707-8052	sswa@loc.gov
General Counsel and Associate Register of Copyrights	Jacqueline Charlesworth-Sarang	(202) 707-8723/572	jcharlesworths@loc.gov
Deputy General Counsel	Sy-Damile	(202) 707-3522	sdam@loc.gov
Director of Policy & International Affairs and Associate Register of Copyrights	Karyn Temple Claggett	(202) 707-7845	kcl@loc.gov
Deputy Director of Policy & International Affairs	Maria Strong	(202) 707-8390	mstrong@loc.gov
Director of Registration Policy & Practices and Associate Register of Copyrights	Robert Kasunic	(202) 707-0229	rkas@loc.gov
Deputy Director of Registration Policy & Practices	Erik Bertin	(202) 707-7566	ebertin@loc.gov
Director of Public Information & Education and Associate Register of Copyrights	William Roberts	(202) 707-8391	wroberts@loc.gov
Director of Office of Public Records and Repositories	Elizabeth Scheffler	(202) 707-6042	esch@loc.gov
Chief of Operations, Copyright	David Christopher	(202) 707-8825	dchr@loc.gov
Chief Information Officer, Copyright	Douglas Ament	(202) 707-5440	dament@loc.gov
Director, Copyright Technology Office	Ricardo Farrai-Felipo	(202) 707-0110	rfar@loc.gov
Chief Copyright Royalty Judge (CRJ)	Suzanne Barnett	(202) 707-8386	suba@loc.gov

*Note: CRJ is not a part of the Copyright Office and any IT-related questions from Judge Barnett

APPENDIX E: COPYRIGHT OFFICE STATEMENT ON SLA

The U.S. Copyright Office is committed to working with the Library of Congress, including by considering the Library as a qualified vendor of shared services or commodity IT when appropriate to meet the needs of the Copyright Office and its customers. To that end, the Copyright Office enters into this Service Level Agreement as a starting point for the FY2015-2016, while noting however that there are significant areas for improvement and which the Library acknowledges will need to be explored in more detail as it develops its service capabilities. Two primary areas are identified below, to be the focus of future SLAs and revisions between the Library and Copyright Office.

First, the current SLA lacks important details related to the provision of services under the Agreement. For example, the SLA does not address all current services being provided to the Office by the Library, including backup and recovery, asset management, remote access, and change management support (both administrator and engineering support). For those services that are identified, the SLA lacks sufficient specificity as to the services provided (e.g., system backups and testing of system backups, specific infrastructure designs which impact line-of-business applications, network design and network mapping which affect bandwidth and throughput, equipment refresh cycles, the Office's cost for services related to desktop computing, and more granularity related to the provision of Information Security Management, hosting, messaging, and collaboration services). The Office also believes the SLA would benefit from a more detailed discussion of performance metrics, including metrics related to customer satisfaction and expected follow-up actions if services are unsatisfactory. The Office would also benefit from knowing how to request the addition/removal of a shared service and what reporting mechanisms will be used to confirm a service is being delivered as promised. Similarly, further documentation of appropriate notification procedures and escalation paths would be beneficial for both the Library and the Copyright Office. These will be the focus of a Memorandum of Understanding that may address some of these issues in greater detail.

Second, and more significantly, the SLA is limited to the present, commodity IT-based model, under which the Copyright Office manages software applications and the Library manages underlying IT systems. Given the current consensus regarding the necessity for the modernization of the Copyright Office IT systems, both the Office and the Library have acknowledged that this SLA is limited to the status quo and may need to be thoroughly reevaluated if and when the Office embarks upon IT modernization. The Copyright Office's vision for a lean, nimble, results-driven and future-focused IT system is set forth in its Provisional IT Plan and Cost Estimate, which presents a comprehensive and exhaustive technology modernization plan. The Provisional IT Plan would establish an IT system that meets the current and future needs of a modern copyright agency by minimizing costly infrastructure needs, embracing cloud services, and utilizing mobile technologies. Under the Plan, the Office would phase out legacy systems and assume a clean-slate, carefully targeted strategy in moving forward. While the Office will work actively to leverage synergies with the Library, including by utilizing the Library as a vendor for commodity IT when cost efficient and appropriate for the Office's needs, the IT Plan is based on the assumption that modernization must be managed from within the Copyright Office.

The Copyright Office looks forward to continued collaboration with the Library of Congress on these issues.

Ament, Douglas

From: Barton, Bud
Sent: Wednesday, August 10, 2016 1:49 PM
To: Ament, Douglas
Subject: RE: Latest Draft SLA - 081016

Thank you Doug, we'll finalize and return for final review and signatures.

Bud

From: Ament, Douglas
Sent: Wednesday, August 10, 2016 12:08 PM
To: Barton, Bud
Subject: Latest Draft SLA - 081016

Bud,

Please find attached the latest draft SLA which includes Copyright Office edits for your review. The "Redline" version clearly shows all of our proposed edits which hopefully makes it a little easier to review. Let me know if you have any questions.

Thanks,

Doug

*Douglas Ament
 Chief Information Officer, US Copyright Office
 101 Independence Ave, SE, LM-403
 Washington, DC 20540
 202-707-5440 – Office
 202-413-4656 – Mobile
dament@loc.gov*


Ament, Douglas

From: Barton, Bud
Sent: Thursday, August 11, 2016 2:22 PM
To: Ament, Douglas
Subject: RE: Latest Draft SLA - 081016

Doug,

Thank you for the document although I thought this was the MOU not SLA, my mistake. In consultation with GAO, OCIO is incorporating baseline commodity and enterprise IT service offerings into a service catalog that replaces the need for individual service unit SLA agreements. MOUs will be used for mission specific needs not initially covered in the service catalog which will be published before the end of the FY16. I know OCIO team members have been working with copyright team members to iron out concerns with the MOU and hope that is going well. I understand your hesitancy to sign off on the MOU since the service catalog has not been published. We can defer completing the MOU until after the service catalog is published if you prefer.

Bud

Bernard A. Barton, Jr.
 Chief Information Officer

 101 Independence Avenue, S.E.
 Washington, D.C. 20540-1300
 202-707-1246

From: Ament, Douglas
Sent: Wednesday, August 10, 2016 12:08 PM
To: Barton, Bud
Subject: Latest Draft SLA - 081016

Bud,

Please find attached the latest draft SLA which includes Copyright Office edits for your review. The "Redline" version clearly shows all of our proposed edits which hopefully makes it a little easier to review. Let me know if you have any questions.

Thanks,

Doug

Douglas Ament
Chief Information Officer, US Copyright Office
101 Independence Ave, SE, LM-403
Washington, DC 20540

202-707-5440 – Office
 202-413-4656 – Mobile
dament@loc.gov

8-1-10
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QUESTION 15

Memorandum of Understanding

Between
Information Technology Services
And
Copyright

1. INTRODUCTION

This Memorandum of Understanding (MOU) defines the terms under which Copyright and Information Technology Services (ITS) will coordinate and interoperate prior to, during, and immediately following the deployment of the Windows XP platform in accordance with the Workstation Configuration Management (WCM) project. Specifically, this MOU establishes the responsibilities of the relevant parties with regard to the following 12 areas:

1. Training
2. Data Management
3. Software License Authorization
4. Application and Workstation Requirements
5. Deployment Preparation
6. Data Migration
7. Logistics
8. Workstation Build
9. Workstation Delivery and Setup
10. Workstation Recycle and Surplus
11. On-Site Support
12. Production Support

2. PARTIES

This document constitutes an agreement between ITS and COPYRIGHT.

3. TERMS AND CONDITIONS

- A. This MOU may be amended only upon agreement between ITS and COPYRIGHT. Requests to modify this MOU, including appendices, must be submitted in writing from one party to the other.
- B. This document takes effect upon signing by the Director, ITS, or his/her designee, and COPYRIGHT.

4. RESPONSIBILITIES

The Parties agree to accept the following responsibilities in accordance with the purpose of this Memorandum identified in Section 1, Introduction.

4.1. Pre-Deployment

4.1.1. Training

ITS shall:

- a) Develop a WCM Training Plan.
- b) Provide training¹ on the fundamentals of the Windows XP platform.

COPYRIGHT shall:

- a) Register users for training on the Windows XP platform via the Online Learning Center or arrangement with the WCM Project Coordinator.
- b) Direct users to attend training on the Windows XP platform.

4.1.2. Data Management

ITS shall:

- a) Provide a list of standard file extensions to COPYRIGHT (see Appendix A).
- b) In the event that the process for storing COPYRIGHT users' GroupWise archives on the LC network has not been completed, migrate archives to the default folder on the C drive -C:\NGWARC.

COPYRIGHT shall:

- a) Provide a listing of WCM non-standard file extensions used in COPYRIGHT, subject to modification (see Appendix B).
- b) Run DISK CLEANUP and DEFRAGMENTER.
- c) Move all COPYRIGHT user data files to users' "My Documents" folders.
- d) In the event that COPYRIGHT has installed applications where the data files are not located in the "My Documents" folder, COPYRIGHT shall identify these files in writing to ITS requesting they be added to WCM standard file extensions list for COPYRIGHT.
- e) Inventory file extensions of non-standard COPYRIGHT data files and provide to ITS.
- f) Provide ITS with a list of computer IDs for users that will be deployed so that data can be copied to the network.
- g) Submit any exceptions in writing to the ITS Release Team Manager.
- h) Migrate COPYRIGHT users' GroupWise archives to a network location prior to the XP deployment.

¹ Training shall consist of briefing end-users on the WCM Project, workstation security, the differences between Windows 2000 and the Windows XP platform, and instructions on how to manage their desktop and data.

4.1.3. Software License Authorization

Software license management is an integral part of WCM project. Some licenses are owned by ITS, while others are owned by COPYRIGHT. COPYRIGHT is required to inform the WCM Requirements Effort what licenses they own and provide associated proof of ownership, such as keys, media, contracts, etc. (if necessary) for additional parts of the WCM process. Specific details of the COPYRIGHT/ITS licensing agreement are contained in the Software Licensing Agreement (see Appendix C).

ITS shall:

- a) After the WCM Requirements Effort has received and organized the ITS and COPYRIGHT license information, provide COPYRIGHT with a list of software applications and number of licenses to be installed during deployment, stipulating who owns which licenses and in what quantities.
- b) Configure the Live State Discovery tool to track license utilization.

COPYRIGHT shall:

- a) Provide the WCM Requirements Effort any and all software application licenses with Application Fact Sheets that are owned by COPYRIGHT.
- b) Add license information to the Live State Discovery tool for license tracking.

4.1.4. Application and Workstation Requirements

ITS shall:

- a) Make the Application Fact-Sheet template(s) available to COPYRIGHT in electronic format.
- b) Make the Windows XP Deployment Checklist available to COPYRIGHT in electronic format.
- c) Transfer data provided by COPYRIGHT into the DCL database.

COPYRIGHT shall:

- a) Complete and submit an Application Fact-Sheet for all COPYRIGHT software not in the core configuration to ITS.
- b) Provide data for the completion of a single Windows XP Deployment Checklist for each COPYRIGHT workstation to ITS.

4.2. Deployment

4.2.1. Deployment Preparation

ITS shall:

- a) WCM Requirements Effort shall compare end-user Windows XP Deployment Checklists against COPYRIGHT Application Fact-Sheets and resolve any differences with the COPYRIGHT Liaison(s).
- b) WCM Release Effort shall confirm approved Windows XP Deployment Checklists with the COPYRIGHT representative one week before scheduled build and refer any differences to the WCM Requirements Effort.
- c) Update Windows XP Deployment Checklists as necessary.
- d) Review Application Fact-Sheets for accuracy and completeness.
- e) Verify user data in "My Documents" folder has been backed up.
- f) Deliver "Library of Congress Windows XP Quick Reference Guide" manuals to COPYRIGHT Liaison(s).
- g) Schedule weekly meetings with COPYRIGHT Deployment Team to review scheduling.

COPYRIGHT shall:

- a) Determine COPYRIGHT staff location and special needs or considerations.
- b) Distribute "Library of Congress Windows XP Quick Reference Guide" manual to all COPYRIGHT users.
- c) Supply a list of end-user names per day that will be upgraded at least ten (10) days prior to date of workstation delivery. The list shall consist of a minimum number required to fully employ the Release Team provided by ITS. The expectation is that each Release Team member can perform up to six (6) workstation deployments per day.
- d) Ensure that a COPYRIGHT representative will be available one week before and during the scheduled deployment.

4.2.2. Data Migration

ITS shall:

- a) Migrate user data from old workstations to LC network using automated scripts.
- b) Create a ghost image of each COPYRIGHT end-user workstation two (2) days prior to deployment.
- c) Migrate user data from the LC network to new workstations using automated scripts.
- d) Store the ghost image of each COPYRIGHT workstation on corresponding local drive of new workstation.

COPYRIGHT shall:

- a) Migrate user data not in standard locations from old workstations to LC network.

- b) Migrate user data not in standard locations from LC network to new workstations.

4.2.3. Logistics

ITS shall:

- a) Confirm deployment schedule with COPYRIGHT.
- b) Arrange for delivery of hardware and equipment for end users.

COPYRIGHT shall:

- a) Create deployment schedule by user, building, floor, room.

4.2.4. Workstation Build²

ITS shall:

- a) Provide a workstation with Core and Authorized applications as listed on each DCL.
- b) Add the relevant COPYRIGHT and division-specific workstation support group to the local admin group
- c) Add a COPYRIGHT local admin account and password to the local admin group and inform COPYRIGHT of the password

COPYRIGHT shall:

- a) Perform manual installation of any Authorized and licensed software as approved by the Workstation Change Control (WCC) working group, WCM Requirements, and Security Efforts. Installation will occur in a build area prior to installation at the end-user's work site.
- b) Push Authorized applications to COPYRIGHT workstations with Live State Delivery, if necessary.

4.2.5. Workstation Delivery and Setup

ITS shall:

- a) Remove old workstations from COPYRIGHT office space to a COPYRIGHT staging area prior to set up of new workstations.
- b) Set up workstations (including monitor, mouse and keyboard) at the agreed-upon rate (see Section 4.2.1), with a maximum rate of 20 workstations per day.
- c) Perform and document any manual adjustments on new workstations.
- d) Compare new workstations to Windows XP Deployment Checklists for inconsistencies.
- e) Test key components of the system (see Appendix D).
- f) Ensure that the end-user verifies proper workstation set-up by signing off on the DCL. If end-user is not available, then the COPYRIGHT representative shall provide the appropriate sign off.

² All CIS workstations will remain as Windows 2000 workstations due to their high complexity.

- g) Provide a copy of the asset management information for the old and new equipment to COPYRIGHT.

COPYRIGHT shall:

- a) Ensure each end-user prepares his/her physical space for the workstation exchange.
- b) Ensure each end-user signs a User Sign-Off Sheet indicating that the machine has been delivered, has connectivity to the LC network, and is functioning correctly.

4.2.6. Workstation Recycle and surplus

ITS shall:

- a) Deliver all surplus equipment to the COPYRIGHT designated storage location.
- b) Prepare an ISS surplus request for pick-up of monitors.

COPYRIGHT shall:

- a) Recycle GX620 workstations for deployment as XP workstations within COPYRIGHT.
- b) Surplus all non-Windows XP-compliant workstations and send to Landover facility.
- c) Be responsible for wiping the hard drives for workstations that possess sensitive, confidential information, on a case-by-case basis.
- d) Designate a storage location for monitors.

4.3. Post-Deployment

4.3.1. On-site Support

ITS shall:

- a) Provide on-site support to respond immediately to service requests for three (3) days following delivery of new workstations.

COPYRIGHT shall:

- a) Direct its users to call the ITS Help Desk for assistance related to the rollout.
- b) Enter service requests requiring ITS assistance into Remedy.

4.3.2. Production Support

ITS shall:

- a) Provide workstation products and services.
- b) Provide WCM services relating to requests for changes to current workstation configurations.
- c) Track workstations from receipt through delivery to COPYRIGHT.

COPYRIGHT shall:

- a) Provide dedicated help desk support for Windows XP to COPYRIGHT users (e.g., assistance, troubleshooting, etc.).

5. POINTS OF CONTACT**5.1. ITS Points of Contact**

Name	Title	Service Unit	Work Number
Jason Yasner	WCM COP Project Manager	ITS	202-707-2255
Keith Emerson	WCM Release Team Lead	ITS/SAIC	202-707-5786
Kevin Tucker	WCM Project Coordinator	ITS/SAIC	202-707-7890

5.2. COPYRIGHT Points of Contact

Name	Title	Service Unit	Work Number
Julia Huff	Chief Operating Officer	COP/REG	202-707-6042
Mike Burke	Chief, Copyright Technology Office	COP/CTO	202-707-8356
Jerry Tuben	Supervisory IT Specialist	COP/CTO	202-707-5293
Gwen Roberts	Automation Liaison	COP/CTO	202-707-7381
Richard Purnell	Automation Liaison	COP/CTO	202-707-0337
James Taylor	Automation Liaison	COP/CTO	202-707-7706

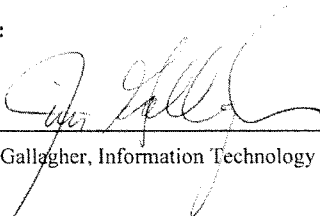
Signature Page

Memorandum of Understanding (MOU)
Between
Information Technology Services
And
Copyright

This MOU establishes a symbiotic relationship between ITS and COPYRIGHT prior to, during, and immediately following the deployment of the Windows XP platform in accordance with the WCM project. While COPYRIGHT is dependent upon ITS to deliver the MOU identified products and services, the quality and timeliness of those products and services is dependent upon COPYRIGHT satisfying their responsibilities in each of the 12 defined areas of this document in a timely manner.


I, the undersigned, have read the Memorandum of Understanding and agree to abide by all the terms and conditions outlined herein.

ITS:



Jim Gallagher, Information Technology Services
Date 12-12-07

COPYRIGHT:



Julia Huff, Copyright Office
Date 12-13-07

FINAL

Appendix A – Standard File Extensions

ITS will use an automated script to identify files to be migrated. The default extensions are as follows:

- .bmp
- .doc
- .gif
- .jpg
- .jpeg
- .mdb (MS Access)
- .mpp (MS Project)
- .ppt (MS Power Point)
- .tif
- .txt
- .vsd (MS Visio)
- .wpd (WordPerfect)
- .xls (MS Excel)

Appendix B – Non-Standard File Extensions

ITS will use an automated script to identify files to be migrated from the non-standard default extensions provided by COPYRIGHT, listed below.

- .cfm
- .htm
- .html
- .php
- .mex (Macro Express macros)
- .wpm (WordPerfect macros)
- .pdf (Acrobat format)

Appendix C – Software License Agreement

Agreement

Software Licensing Responsibilities

Agreement between Information Technology Services and Copyright on organizational responsibilities for licensing for applications installed on production workstations controlled by Workstation Configuration Management (WCM).

- (1) ***All software to be deployed must have approval of the Workstation Change Control Working Group and appropriate ITS signoff.*** Endorsement requires COPYRIGHT submit a completed Application Fact-sheet or Change Request Form, and the completion of a Security Review performed by the ITSG in ITS. Where there are vulnerabilities to an application, a waiver signed by the Director of ITS must be signed prior to installation in the production domain.
- (2) ***The Application Owner is responsible for tracking and managing its software licenses and maintenance agreements.*** ITS is the Application Owner for any software included on the Horizon3 CORE and Priority1 Applications list. (See attached a copy of latest version of this list). Any additions and/or changes to this list are subject to review by the two signing parties. COPYRIGHT is the Application Owner for any software procured or developed for the exclusive or primary use of COPYRIGHT business units.
- (3) ***The Packaging System will serve as the primary control for the distribution and license tracking for any application with a significant distribution target group.*** All items on the Horizon3 CORE and Priority1 Applications list will be packaged by ITS, and ITS will manage licenses through that facility. For COPYRIGHT owned software which warrants distribution via the Packaging System, ITS will control the package distribution, though COPYRIGHT will frequently assist in the package creation process. COPYRIGHT will manage licenses by monitoring the distribution by the Packaging System. This monitoring could be accomplished via real time access or via regular, printed reports.
- (4) ***For software applications which COPYRIGHT wishes to deploy manually, COPYRIGHT will have responsibility for both managing the licenses and manual deployment.***
- (5) ***During the WCM Rollout, ITS will assume responsibility (including new purchases, upgrades and maintenances) for the applications on the Horizon3 CORE and Priority1 Applications list as individual instances are distributed via the Packaging System.*** Conversely, COPYRIGHT will reduce its licensing investment as individual instances are migrated from Windows 2000 to Windows XP.

FINAL


- (6) Once ITS assumes responsibility for licensing on a Windows XP workstation, ITS will maintain this responsibility going forward.

ITS:



Jim Gallagher, Information Technology Services
Date 12-12-07

COPYRIGHT :



Julia Huff, Copyright Office
Date 12-14-07

FINAL

Appendix D – Release Checklist

Technician: _____
 End User: _____
 Host Name: _____
 Service Unit: _____
 MAC Address: _____
 LOC Tag: _____

The new workstation will be delivered based on the schedule created and arranged by the Service Unit Liaisons.

To avoid losing data, save and close any open files and exit any open programs before you turn off your computer.

1. ☐ Shut down the operating system:
 - a. Save and close any open files, exit any open programs, click the **Start** button, and then click **Shut Down**.
 - b. In the **Shut Down Windows** window, choose **Shut Down**. The computer turns off after the operating system shutdown process finishes.
2. ☐ Ensure that the computer and any attached devices are turned off. If your computer and attached devices did not automatically turn off when you shut down your operating system, turn them off now.
3. ☐ Disconnect old workstation and connect new workstation and all attached devices from and to their electrical outlets.

Disconnect

Connect

☐

☐ Network cable or any telecommunication connections

☐

☐ Power cord

☐

☐ Mouse

☐

☐ Keyboard

☐

☐ Local printer (if required)

☐

☐ Local scanner (if required)

FINAL

- ☐ ☐ Any additional peripheral devices
4. ☐ Login to the new workstation for the first time as the User to create a profile for the user and check that the core applications open and run
 5. ☐ Have end-user log into his/her GroupWise account and check the location of the archive Directory, ensuring that it is pointed to the proper location (NGWARC or LOC Network)
 6. Check the functionality of the following applications:

<input type="checkbox"/> Adobe Acrobat Reader	<input type="checkbox"/> Microsoft Office XP
<input type="checkbox"/> Apple QuickTime	<input type="checkbox"/> Microsoft Visio
<input type="checkbox"/> AVUE Employee Services	<input type="checkbox"/> Microsoft Windows
<input type="checkbox"/> AVUE Management Services	<input type="checkbox"/> Media Player
<input type="checkbox"/> FileZilla	<input type="checkbox"/> Novell GroupWise
<input type="checkbox"/> Hypersnap	<input type="checkbox"/> RealOne Player
 7. ☐ Ensure there is:
 - ☐ Network connectivity
 - ☐ Peripherals are configured correctly (e.g., printers, scanners, etc)
 8. ☐ Map the necessary network drive(s) (this information can be found on the Deployment Checklist).
 9. ☐ Log out of user account and login as the administrator.
 10. ☐ Install local and network printers as required.
 11. ☐ Print a test page from the local printer (if applicable to verify that the printer is functional)
 12. ☐ Record data from new computer:

FINAL

- a. Connect to \\Vandy1\WMCP\Tools\WCM \WCM and Select the **Gather Data** Button (button #1)
 - b. Populate the First and Last Name, Room, Phone numbers, and LOC Tag Number Fields
 - c. Click on **Save Data** and **Exit**
- 13. ☐ Migrate the End-User's Data
 - a. Connect to \\Vandy1\WMCP\Tools\WCM and Select **Restore Files and Images (button #3)**
 - b. Click on the User Profile drop down box and select the end-user's profile.
 - c. Once the profile is selected click on **Search for a folder like this account** to search for the end-user.
 - d. Check the boxes next to the backup folder and Ghost files and click on **Select Backup Folder to Copy**.
 - e. Click on **Restore Files and Images** to start the file restoration.
 - f. At the completion of the restoration, confirm that the Ghost image has been copied to the workstation and is readable.
 - g. Once the file restoration is complete click on **Exit**.
 - h. Have end-user log in and confirm that the workstation is operational
 - i. Have the designated representative sign the DCL
- 14. ☐ Pickup the end-user's old workstation and monitor for removal.
- 15. ☐ Record the CPU LOC Barcode and Serial Number.
- 16. ☐ Place workstation (e.g., CPU, monitor, keyboard, etc.) in the agreed-upon designated area of the service unit/department.
- 17. ☐ Place the monitors in LM-G04 on the entry ramp.
- 18. ☐ Turn in the completed Deployment Checklist along with all corresponding documentation (i.e., deployment step-by-step checklist, data migration checklist, and end-user acceptance form) to the task lead for electronic compilation and updates.



Memorandum of Understanding (MOU)

Between Information Technology Services (ITS) and the
Copyright Technology Office (CTO) for Hosted Application
Support

Hosted Application:

eCO (The Electronic Copyright Office System COP-0001)

November 7, 2011

Version 1.13

Signatures:

I agree to the terms of this Memorandum of Understanding.

ITS Signatory Authority:

Al Banks
Director, ITS


Date:

Copyright Office Signatory Authority:

Doug Ament
Director, CTO


Date: 11/9/11

Revision History

Date	Author	Version	Change Reference
04/25/2008	A. Goshay	Draft V 0.1	Initial document developed by ITS
09/15/2008	A. Goshay	Draft V 0.2	Updated Backup Requirements
09/22/2008	A. Goshay	Draft V 1.0	Added comments by Janet Chou
04/16/2009	CJAM		
03/29/2010	J. Gillus	Draft V 1.0a	Added vulnerability scanning requirements for ITS.
03/31/2010	CJAM	Draft V 1.2	Added ITS responsibility for end user hardware/PC issues
08/12/2010	Vijay Alan	Draft V 1.3	Added eCO 8.1 system changes, Figure 3, 4, 5, 6, 7, 8 & 10 Updates and Appendices
08/27/2010	Heena Acharya	Draft V 1.4	Updated based on review comments from Jerry, Jannie Gail and Loretta
03/04/2011	G. Schlesier	Draft V1.5	Removed SOPs to make them stand alone docs and updated contact list.
03/17/2011	G. Schlesier	Draft V1.6	Incorporated D. Ament's comments
03/17/2011	G. Schlesier	Draft V1.7	Incorporated D. Ament's comments and removed draft designation for signature.
06/07/2011	G. Schlesier	Draft V1.8	Incorporated comments from J. Sheppard
08/18/2011	J Sheppard	Draft V1.9	
9/12/2011	Kim Dean	Draft V1.10	Overall document revision-applied LOC document standards and ITS MOU standards.
9/30/11	J Sheppard	Draft V1.11	Incorporated comments from Joi and Tamara
10/12/11	J Sheppard	Draft V1.12	Incorporated comments from another round of ITS review (Youkel, Bucknor, Jorstad, Grieg)
11/7/11	J Sheppard	Draft v1.13	Incorporated comments from CTO and fixed a couple minor issues

Reviewers

Name	Position
Douglas Ament	Director of CTO
Denise Wofford	Deputy Director of CTO
Gustav Schlesier	eCO Project Manager
Jannie Grant Gillus	eCO ISSO
Vijay Alan	eCO Technical Lead
Juliette Sheppard	Chief, R&D COP, ITS
Billy Hoppis	Asst Director, Operations, ITS
Joi Grieg	Asst Director, R&D, ITS
Tamara Jorstad	Chief, EUC, ITS
Thomas Youkel	Chief ESE, ITS
Will Gazes	ESE, ITS
David Vetack	ESE, ITS
Vanley Bucknor	Chief, DBA, ITS
Sean Lang	Chief, ITSG, ITS
Tina Wilson	R&D COP, ITS

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1 Supersedes

This Memorandum of Understanding (MOU)/ Interconnection Security Agreement (ISA) for Hosted Application Support (HAS) between Information Technology Services (ITS) and United States Copyright Office (COP) supersedes all other MOUs concerning Application System Support for The Electronic Copyright Office (eCO) system.

2 Revision Schedule

This MOU shall remain in effect barring any changes and/or updates deemed necessary as a result of changes in funding, strategic direction, or a review of this document by all parties. The MOU will be reviewed at least annually for any necessary changes.

3 Purpose

The purpose of this memorandum is to establish a management agreement between ITS and COP regarding the management, operation, maintenance and security of the eCO system. This agreement will govern the relationship and allocation of responsibilities between ITS and COP, including designated managerial and technical staff, in the absence of a common management authority.

Note: Configuration, maintenance, and support of Copyright workstations are outside the scope of this document and are governed by the terms of a separate MOU.

4 Authority

The authority for this agreement is based on *General Information Technology Security Directive 01*, Information Technology Security Policy of the Library of Congress, dated November 5, 2010.

5 Background

5.1 History of Relationship

The Copyright Technology Office (CTO) recently upgraded the Electronic eCO System from Siebel version 7.7 to 8.1. CTO will continue to be responsible for future development, enhancements and maintenance of the eCO application. While ITS will be responsible for maintenance and support of the infrastructure, no modifications to the overall eCO system will be made without coordination and agreement by both parties.

5.2 Hosted Application

eCO is hosted on the Library of Congress Application Hosting Environment (AHE). The AHE serves as the General Support System (GSS) for multiple applications. In addition, eCO has a disaster recovery environment hosted at the Alternate Computing Facility (ACF).

5.2.1 Application Summary

Table 1 – Hosted Application Summary

System Name	The Electronic Copyright Office (eCO)						
Function	Copyright service request processing and information retrieval						
Services Utilized	The services utilized by the Hosted Application Servers: Table 7 -- AHE Services (in Appendix A) Environment Architecture: eCO Architecture (in Appendix A)						
Software Utilized	The software utilized by the Hosted Application Workstations: Table 4 - Workstation Software (in Appendix A) Windows Servers: Table 5 - Windows Server Software (in Appendix A) Unix Servers: Table 6 - Unix Server Software (in Appendix A)						
Levels of Concern	The Hosted Application requires data and systems to be protected at the following levels (at a minimum): <table><tr><td>Confidentiality</td><td>Moderate</td></tr><tr><td>Integrity</td><td>Moderate</td></tr><tr><td>Availability</td><td>Moderate</td></tr></table>	Confidentiality	Moderate	Integrity	Moderate	Availability	Moderate
Confidentiality	Moderate						
Integrity	Moderate						
Availability	Moderate						
Tier Level	The Electronic Copyright Office System (eCO) is designated as a Tier 1 application.						

5.2.2 Application Architecture

The application architecture, including current hardware and software components, is detailed in [Appendix A](#). The architecture specifics are subject to change during the life of the eCO system and this MOU. Any changes will be made in accordance with the Change Management processes described in [Section 10](#) of this document.

6 ITS/COP Roles and Responsibilities

It is the intent of both parties to this agreement to clarify the specific roles and responsibilities of COP and ITS with respect to development, enhancements, maintenance and security of the hosted application "Electronic Copyright Office System (eCO)".

Per this agreement, both parties must agree to fulfill their responsibilities. Failing to fulfill responsibilities can lead to disconnection. In the case of a Hosted Application, disconnection will consist of shutting down the application's processes and perhaps disabling access to database or other shared resources. Please note that disconnection would be a last recourse and would only be performed to protect the overall Library resources.

All support responsibilities listed in section 6 that are not mandated by LOC policies are dependent on the availability of resources (staffing, hardware/software, funding, and contract award), and will be scheduled as resource availability permits.

6.1 Security

As a Hosted Application, eCO relies upon the security controls within the AHE. Many of the security controls that would typically be documented in a System Security Plan (SSP) for a Major Application can be found in the LC DMZ/Internet and LC Intranet SSPs. There are no environmental or technical factors that raise special security concerns for eCO. Since eCO runs on the Application Hosting Environment (AHE), protection of eCO and information is performed by AHE. The security responsibilities for eCO include:

1. Both ITS and COP will adhere to all LCRs and IT Security Directives.
2. ITS shall proactively manage all aspects of information security on the operating systems and server software providing services to the Hosted Application.
3. COP shall proactively manage all aspects of information security on the Hosted Application, within its accreditation boundary.
4. ITS shall run quarterly security scans and work with CTO to resolve any High vulnerabilities reported by the vulnerability scanners.
5. ITS shall provide all system and service security and access logs on a daily basis to the CTO ISSO or their designee.
6. The CTO ISSO shall monitor system security and access logs, and will investigate and report any incidents to the LCSOC.
7. COP shall make the Certification Package and signed Accreditation Memorandum for the Hosted Application available to ITS for review.
8. ITS shall make the Certification Package and signed Accreditation Memorandum for the Application Hosting Environment available to COP for review.
9. ITS shall provide support to the CTO ISSO on the use of ITS-provided auditing tools.

6.2 Network Infrastructure

eCO relies on the LOC primary network for access to the Internet. There are no dial-up lines that access eCO directly. ITS is responsible for maintaining the network infrastructure upon which eCO resides as well as maintenance of pertinent hardware/software. Specifically:

1. ITS is responsible for all eCO Application technical infrastructure for the Production, pre-production, test, development, training, and ACF environments (including server hardware and parts and service contracts, spare and redundant systems, online storage devices, power conditioning, networks, backup systems, and off-site backup).

MOU Between ITS and COP**ITS Hosted Application: eCO****6.3 Hardware/Software/Servers**

1. COP is responsible for all software, software licenses and maintenance agreements specific to the eCO Application which includes the workstation application client, windows server software and the unix server software listed in Appendix A, with the exception of the IBM Tivoli (LDAP) Directory Server and Oracle database software.
2. ITS will provide and maintain the IBM Tivoli (LDAP) Directory Server software and the Oracle database software.
3. COP is responsible for the technical infrastructure for the CTO Development Lab (including server hardware and parts and service contracts, spare and redundant systems, online storage devices, workstations, power conditioning, networks, backup systems, and off-site backup).
4. Configuration, maintenance, and support of Copyright workstations are governed by the terms of a separate MOU. Both parties agree to abide by that MOU for Copyright workstations. In particular, any eCO application components that will run on LOC workstations, including the workstation software components listed in Appendix A, must be approved through the Workstation Configuration Control (WCC) process prior to implementation in the LIB domain. Any software considered freeware to the LOC yet obtained at a cost by any other user must be approved by the LOC OGC prior to submission to the WCC. Freeware that is free to all users does not require LOC OGC review and approval.

6.4 Supporting Software

The following specifies the manner in which support of all software related to the application, eCO are handled between ITS and COP.

1. COP is responsible for end-user support of the eCO application, and any associated eCO-specific client hardware and peripherals.
2. COP is responsible for any eCO application software maintenance, troubleshooting and upgrading.
3. COP will serve as the administrator of the eCO Application specific software (i.e., Siebel administrator, Captiva Administrator, LDAP Administrator, Adobe 2D Administrator, Xerox FreeFlow Administrator, ABC Upload Administrator, etc.)

6.5 System Administration

1. COP will perform application system administration for the eCO application.
2. ITS will provide technical support, administration, assistance, and coordination related to the infrastructure components it administers.
3. ITS will perform database administration for the production, development, test, training, and pre-production environments.
4. ITS will perform implementation of any production system changes including installation of a new release.
5. Any changes to the eCO system will be made in accordance with the appropriate CTO and ITS change control processes.

6.6 System Monitoring

1. ITS will maintain monitoring tools to provide at a minimum basic monitoring of the eCO production system infrastructure, such as server, database, and network availability.
2. CTO will perform monitoring of the application during normal business hours.
3. CTO will implement sufficient application level logging to support eCO system diagnosis and forensics in accordance with COP's eCO reliability and performance objectives.

6.7 Storage

1. ITS will provide storage for the Oracle databases and the eCO Application data.
2. CTO will provide quarterly storage need projections in accordance with OSI/ITS processes.
3. ITS is responsible for providing enterprise class storage for eCO to meet these storage projections.

6.8 Backup/Restore

All Hosted Applications are backed up to tape according to the Storage Allocation Request (SAR) submitted by the system owner. For more information see IT Security Directive 01.

1. ITS will provide backup and restoration services for the eCO system environments and data in accordance with the criteria specified in Appendix B.
2. If COP requires any special backups in addition to the regular schedule, COP will submit a ticket defining the backup request, as far in advance as possible.
3. To test the viability of the backups, on a periodic basis, COP will submit a ticket for ITS to restore specific data from the backups to a secondary location so that COP can perform a validation of the restored data.

6.9 Disaster Support

When events interrupt LOC normal operations and there is loss of eCO system usage, ITS will make every effort to recover all LOC supported systems as soon as possible. In disaster situations, when the LC IT Continuity of Operations Plan (COOP) has been activated, individual systems will be recovered per their designated Recovery Tier.

6.9.1 System Recovery

1. ITS provides Tier 1 disaster recovery for eCO system.
2. ITS provides synchronous replication of the storage system between DCF and ACF for eCO.
3. ITS provides local and remote copies of the eCO system backups.
4. ITS and COP will test eCO ACF and failover capabilities annually. The scope of testing shall include eCO eService and eCO Public Sector.

Table 2 – Recovery in Disaster Situations

Tier	Continuous Data Backup	Hardware Available at ACF	Recovery Period
1	Yes	Yes	*24 hours

*Best Effort

6.10 Procedures

1. COP will follow ITS policies and procedures for anything related to the AHE
2. COP and ITS will document Standard Operating Procedures (SOPs) for those areas where both parties have responsibilities. These SOPs shall define all of the steps to complete that particular activity and which group is responsible for each task within the activity. Examples of SOPs to be developed include:
 - Implementing Password Changes

MOU Between ITS and COP**ITS Hosted Application: eCO**

- Releasing/installing Software Patches
- Stopping and Starting the eCO System
- eCO System Monitoring
- eCO ACF Activities
- SSL Certificate Renewal
- eCO Incident Response/troubleshooting
- eCO Software Releases

6.11 Additional Services

For new eCO-related projects beyond basic O&M, including major upgrades or significant changes, COP will adhere to the following processes:

1. If the project meets the thresholds dictated by the Information Technology Steering Committee (ITSC), then COP will submit the project to the ITSC for approval.
2. If the project does not require ITSC approval, COP will submit the request through the ITS Project/Services Request Approval Process.

Additionally, if the project meets the criteria for requiring Web Governance Board (WGB) approval, then COP will submit the project to the WGB. Note: this applies to both ITSC and non-ITSC approval projects.

COP is responsible for developing any required documentation (including cost benefit analysis) for such requests, with the assistance of the ITS R&D COP Chief or their designee.

7 Communications

Frequent formal and informal communications are essential to ensure the successful management and operation of the application. The parties agree to maintain open lines of communication between designated staff at both the managerial and technical levels.

Electronic written communication is the preferred method of communication and all decisions should be documented. The two parties agree to designate, provide, and maintain contact information for technical leads for the Hosted Application support (COP) and the hardware architecture support (ITS) to address new issues and to facilitate direct discussions between technical leads to support the management and operation of the eCO Application.

Furthermore:

1. When changes to the eCO system or its support structure occur, written notice will be generated by the responsible party to communicate said changes to the appropriate stakeholders to include the other organization.
2. With the exception of emergency situations, ITS shall provide at least five (5) business days advance notification of eCO-related system outages due to regularly scheduled maintenance.

Table 3 – Primary Contacts within the Scope of this MOU

	Name	Office Phone	Email
COP Primary Contact	Denise Wofford	202-707-2638	dwof@loc.gov
COP Secondary Contact	Jerry Tuben	202-707-5293	jtub@loc.gov
ITS Primary Contact	Tina Wilson	202-707-0411	twil@loc.gov
ITS Secondary Contact	Juliette Sheppard	202-707-3932	jsheppard@loc.gov
eCO ISSO	Jannie Grant Gillus	202-707-1716	jgrant@loc.gov
AHE ISSO	Sarah Garske	202-707-0365	sgarske@loc.gov

To safeguard the confidentiality, integrity, and availability of the application and the data stored, processed and transmitted, the parties agree to provide notice of specific events within the timeframes indicated in the sections below: (Sections 7.1 – 7.5).

7.1 Meetings

The primary means of communication to deal with complex issues shall be meetings. Both parties agree to the following:

- Meetings on urgent (emergency) issues will require immediate attention
- Either party can call for a meeting
- The meeting request must include the type (routine or urgent) and the reason for the meeting
- The party calling the meeting will provide a written agenda prior to the meeting. They will also provide a written summary of the meeting reflecting the topics discussed, the major points of discussion within each topic, action items, and all decisions or conclusions reached

MOU Between ITS and COP**ITS Hosted Application: eCO**

- On an annual basis, at a minimum, the parties will meet and discuss the MOU with the goal of updating it as necessary.

7.2 Security Incidents

COP Technical staff will immediately notify their designated counterparts and the ISSO when a suspected security incident is detected, so that they may assist in determining whether the eCO system (or any of its subcomponents) has been compromised and take appropriate security precautions. The ISSO will notify the LCSOC or other appropriate personnel per current LOC security policies and procedures. Telephone contacts will be immediately documented in a follow-up email. The system owner will receive formal notification within five (5) business days after detection of the incident(s).

7.3 Disasters and Other Contingencies

Technical staff will immediately notify their designated counterparts in the event of a disaster or other contingency that disrupts the normal operation of one or both of the connected production systems. In addition, the event should be handled in accordance with the incident response SOP and/or the COOP/DR Plan. When applicable, work shall be performed in accordance with the ACF Activities SOP.

7.4 Personnel Changes

The parties agree to provide written notification of the separation or long-term absence of their respective system owner or technical lead. In addition, both parties will provide notification of any changes in point of contact information. Both parties also will provide notification of changes to user profiles regarding users performing significant application administration (e.g., account maintenance), including resignations or changes to job responsibilities.

7.5 Requests for Technical Assistance

Technical requests for assistance are received by ITS through the Library of Congress Help Desk ticketing system (currently Remedy). The system or owner of the issue area will receive formal notification from the ticketing process, and will act on such requests when received. ITS will address requests for technical assistance according to ITS policies.

1. ITS will provide support for all COP AHE-related hardware requests and problems, with the exception of client hardware and peripherals specifically associated with eCO (e.g. certain scanners and printers, etc.).
2. COP will submit requests for ITS services (e.g. installations, changes, troubleshooting, etc.) as a ticket. In the event of an emergency request, the official ticket may be submitted to ITS within 24 hours after the emergency request is made directly to the required ITS personnel. Emergency requests will be kept to a minimum through good planning and coordination.

8 Disconnection

As discussed above, in the case of a Hosted Application, disconnection will consist of shutting down the application's processes and perhaps disabling access to database or other shared resources.

- ITS will call a meeting, the outcome of which may lead to disabling a Hosted Application, if the Service Unit fails to follow the requirements set forth in this MOU
- ITS will warn the system owner via email of the specific infraction, giving at least ten (10) business days to rectify the issue.
- ITS may immediately disable a Hosted Application if a vulnerability in the Hosted Application is determined to endanger other Hosted Applications or the Application Hosting Environment as a whole. This is known as an Emergency Disconnection
- In case of an Emergency Disconnection, ITS will notify the system owner via email and telephone before disabling the Hosted Application when possible and within 15 minutes otherwise

9 Cost Considerations

- The Copyright Technology Office shall maintain the Hosted Application including all application software (server and workstation), peripheral equipment associated with the Hosted Application, application maintenance agreement, licensing, upgrading and customizations.
- ITS shall budget and fund any recertification of the AHE required by IT Security Directives.
- The Copyright Technology Office shall budget and fund any recertification of the Hosted Application as required by IT Security Directives.

10 Change & Configuration Management

1. Any changes to the eCO system hardware or software, as identified in the eCO Architecture diagram (Appendix A), will be communicated between CTO, Development, O&M & ITS team members to identify the impact of the change.
2. Any change, with the exception of emergency security changes needed to stop an imminent security threat, will be implemented in the development, test & pre-production environments, and tested successfully by all parties before implementation in production.
3. COP will operate under change and configuration management processes to manage changes to the hosted application. ITS will participate in these processes as appropriate.
4. Any changes made to the hosted production environment must adhere to the ITS Configuration Management Process.

10.1 Material Changes to System Configuration

A material change is defined as a substantial configuration change that will impact what is supported or how the eCO system is supported. When either the CTO or ITS identifies a change that may impact their counterparts, this change should be communicated in writing at least (1) month prior to testing and scheduled implementation of

MOU Between ITS and COP**ITS Hosted Application: eCO**

the proposed change. This does not apply to changing passwords. The initiating party agrees to conduct a risk assessment based on the new system architecture and to update the MOU within one (1) month of implementation.

10.2 Emergency Configuration Changes

Emergency changes are defined as those that are necessary to ensure that the application continues to fulfill its mission. While these changes are generally not material in nature, emergency changes that are material in nature can be made unilaterally, but must immediately be followed up within 15 minutes with an email or phone call to the contact. Within 24 hours, a written notice must be delivered to the other party and an Urgent meeting must be called to discuss the changes.

10.3 New Interconnections

The initiating party will notify the other party in writing at least one (1) month before it connects its IT system with any other IT system, including systems that are owned and operated by third parties.

This section describes the eCO application and system architecture as of September 2011. Any changes to this architecture will be made in accordance with the provisions outlined in the above MOU.

[illegible]

Table 4 – Current eCO-required Workstation Software

Note: this software is subject to WCC and covered by a separate workstation configuration MOU.

Workstation Software	Version	Vendor
Internet Explorer	6.0+/8.0+	MS
Adobe Reader	9.0+	Adobe
MS Word	2003	MS
Oracle 11g Client	11g	Oracle
Voyager Client	7.2	Ex Libris
InputAccel Client	5.0	Captiva
WinWedge		TAL
Siebel Dedicated Client	8.1	Siebel
Calendar DLL (custom)		
Time DLL (custom)		
SUN JVM (Java Virtual Machine) (free download)	1.4.1	SUN
Actuate Viewer (free with Siebel)	8	Actuate
Fujitsu-4220C Driver (free)		Fujitsu
Kodak TIF Viewer (free)		Kodak
Numeric Pad DLL (custom)		
YESNO Popup DLL(custom)		
FileExist DLL (custom)		
Oracle Search DLL/OCX (custom)		

Table 5 – Current Windows Server Software as of October 2011

[illegible]

Table 6 – Current Unix Server Software as of October 2011

Unix Server Software	Version	Vendor	RS218P RS218PRE RSORA11GT	(SUN21) (SUNLAB 1) Voyager	(COPYECO1 COPYECO2) COP Web	(SUN8) Mail	RS33 RS33PRE RSLDA1PT	SUN4 SUNLAB1
COP Siebel DB	11	Oracle	X					
SMTP & POP3 Service in DMZ		SUN				X		
Apache (DMZ)					X			
COP Voyager Database	8.0.5	Oracle		X				
Voyager Unicode	7.2	Ex Libris		X		X		
Tivoli Directory Server	6.2	IBM					X	
MetaSearch		IndexData						X
eCO Receipts		IndexData						

A.1 Hosting Services

Table 7 – Current AHE Services (eCO) as of October 2011

Services	Servers Utilized for this function by the Hosted Application	
	Production	Loctest
Application Platform for Windows applications	LCDC1/LCDC2–Windows 2003-AD Server	LTDC1/LTDC2–Windows 2003-AD Server
	ECOPRDWEB1–Windows 2008-Web Server	ECOPREWEB1–Windows 2008- Web Server
	ECOPRDWEB2–Windows 2008-Web Server	ECOPREWEB2–Windows 2008- Web Server
	ECOPRDGTW1–Windows 2008- Gateway Server	ECOPREGTW1–Windows 2008- Gateway Server
	ECOPRDGTW2–Windows 2008- Gateway Server	ECOPREGTW2–Windows 2008- Gateway Server
	ECOPRDAPP1–Windows 2008- Application server 1	ECOPREAPP1–Windows 2008- Application server 1
	ECOPRDAPP2–Windows 2008- Application Server 2	ECOPREAPP2–Windows 2008- Application Server 2
	ECOPRDAPP3–Windows 2008-	ECOPREAPP3–Windows 2008-

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ITS Hosted Application: eCO

Services	Servers Utilized for this function by the Hosted Application	
	Production	Loctest
	Application Server 3	Application Server 3
	ECOPRDAPP4-Windows 2008-Application Server 4	ECOPREAPP4-Windows 2008-Application Server 4
	ECOPRDAPP5-Windows 2008-Application Server 5	ECOPREAPP5-Windows 2008-Application Server 5
	ECOPRDINT1-Windows 2008-Application Server 6	ECOPREINT1-Windows 2008-Application Server 6
	ECOPRDINT2-Windows 2008-Application Server 7	ECOPREINT2-Windows 2008-Application Server 7
	ECOPRDDOC1-Windows 2008-Application Server 8	ECOPREDOC1-Windows 2008-Application Server 8
	ECOPRDDOC2-Windows 2008-Application Server 9	ECOPREDOC2-Windows 2008-Application Server 9
	ECOPRDRPT1-Windows 2003-Actuate Report Server	ECOPRERPT1-Windows 2003-Actuate Report Server
	ECOPRDRPT2-Windows 2003-Actuate Report Server	ECOPRERPT2-Windows 2003-Actuate Report Server
	COPSCAN - Windows 2000-Scanning and Fax Server	ECOTGTWEB1-Windows 2008-Web Server
	COPSCAN2 - Windows 2000-Scanning and Fax Server	ECOTGTWEB2-Windows 2008-Web Server
	COPLVC - Windows 2003-Adobe 2D Server	ECOTSTAPP1-Windows 2008-Application server 1
	COPPRINTSVR - XeroxFreeFlow-Windows FreeFlow Server	ECOTSTAPP2-Windows 2008-Application Server 2
		ECOTSTAPP3-Windows 2008-Application Server 3
		ECOTSTINT1-Windows 2008-Application Server 4
		ECOTSTINT2-Windows 2008-Application Server 5
		ECOTSTDOC-Windows 2008-Application Server 6
		ECOTSTRPT-Windows 2003-Actuate Report Server
		LiveCycle2-Windows 2003 Adobe 2D Server

MOU Between ITS and COP

ITS Hosted Application: eCO

Services	Servers Utilized for this function by the Hosted Application	
	Production	Loctest
		COTSCAN–Windows 2000 Scanning and Fax Server CODEVAPP1–Windows 2008- Application Server CODEVAPP2–Windows 2008- Application Server FREEFLOW - XeroxFreeFlow– Windows FreeFlow Server
Application Platform for AIX applications	CopeCO1 – External Apache Web Server CopeCO2 – External Apache Web Server RS21SP – AIX Oracle Server RS28 – AIX Backup Server RS33 – AIX LDAP Server	CopeCO1 – External Apache Web Server CopeCO2 – External Apache Web Server RS21SPRE – AIX Oracle Server RSORA11GT – AIX Oracle Server RS28 – AIX Backup Server RS33PRE – AIX LDAP Server RSLDAPT – AIX LDAP Server
Application Platform for Solaris applications	SUN4 – SUN MetaSearch Server SUN8 – External Mail Server SUN21 – SUN Voyager Server	SUNLAB1 – SUN MetaSearch Server SUN8 – External Mail Server SUNLAB1 – SUN Voyager Server
Application Platform for File System	EMCPROD – EMC Celera	EMCTEST – EMC Celera

Appendix B: Backup Schedule

ITS will provide and retain backups of the hosted application environments in accordance with ITS' standard backup and retention processes and policies.

The backup and retention schedule will meet or exceed the following requirements:

Environment	DB Name	Frequency	Retention of Backup	Notes
Development	SBLZ	Daily	Retain 3 Weeks of backup (Min)	This environment may change daily due to multiple projects using this space
Test	SBLU	Once a week during CTO testing	Retain 3 Weeks of backup (Min)	dba group will need to be notified with a support ticket when daily backup is needed
Training	SBLV	Once a week or as decided by Training group.	Retain 3 Weeks of backup (Min)	dba group will need to be notified with a support ticket if frequency or retention period increase is needed
Pre Prod	SBNS	During UAT, daily backup else weekly	Retain 3 Weeks of backup (Min)	dba group will need to be notified with a support ticket when daily backup is needed
Prod	SBNP	Windows Servers: Daily Incremental backup begin at 8:30 PM through 6 AM Weekly full backup begin at 8:30 PM through 6 AM Unix Servers: Tape: Weekly (Full Backup) Disk: Daily Cumulative (daily at night) Disk: 3 hours (Incremental) File System: 30 most recent copies	Windows Servers: Daily Incremental kept for 3 months Weekly full backup kept for 6 months Unix Servers: Tape: 3 weeks Disk: 3 days Disk: 24 Hours File System: Full backup monthly kept for 9 months	
Prod Copy	SBLX	On Demand (Usually done during release)	On Demand (Usually done during release)	



C o p y r i g h t T e c h n o l o g y O f f i c e

**DMS Title Profile Query
Memorandum of Understanding (MOU)**

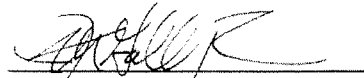
**Version 1.2
September 12, 2012**

MEMORANDUM OF UNDERSTANDING (MOU)

Between Office of Strategic Initiatives (OSI) and the Copyright
Office for access to Siebel EAI Query Interface to the eCO
System

Signatures:

I agree to the terms of this Memorandum of Understanding.

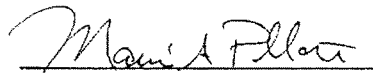


OSI Signatory Authority

Jim Gallagher

Acting Associate Librarian

For Strategic Initiatives



CO Signatory Authority

Maria Pallante

Register of Copyrights

Date 9-26-12

Date 9-26-12

DOCUMENT CONTROL

Change Record

Date	Author	Version	Change Reference
July 23	J. Smith	0.1	Initial Draft
July 30	J. Smith	0.2	Added CTO & DMS CM SOP (Appendix A & B)
Aug 29	V. Alan	1.0	Final Draft (updated 1.6, 1.8, 1.9)
Sep 06	J. Smith	1.1	Updates requirements per review
Sep 12	S. Swann	1.2	Updated section 2.2 per Anupama and Vijay

Reviewers

Name	Position
Denise Wofford	Deputy Director, CTO
Leslie Johnston	Program Manager, eDeposit
Vijay Alan	Chief Architect, eCO System
Christopher Reed	eSerials Project Sponsor
Stephen Want	Chief, CAD
Anupama Rai	Supervisory Info Tech Specialist
Vijay Alan	Chief Architect, eCO System

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1 INTRODUCTION

1.1 Supersedes

This Memorandum of Understanding (MOU) regarding the DMS Title Profile Query of the eCO System between the United States Copyright Office (CO) and the Office of Strategic Initiatives (OSI) supersedes all other MOUs concerning Siebel's EAI Query Transactions.

1.2 Revision Schedule

This MOU will remain in effect barring any changes and/or updates deemed necessary as a result of changes in funding, strategic direction, or a review of this document by all parties for 6 months. After the initial 6 months the MOU is in effect, an analysis will be conducted to determine the query's impact on eCO System performance and planned updates to the eCO System and DMS.

Failure of by any party or stakeholder to comply with policy and procedures documented within this MOU may result in a withdrawal of EAI Query Transactions.

The MOU will be renewed for a year, and will continued to be renewed annually as long as the impact to the eCO System performance and operations & maintenance activities are minimal.

1.3 Purpose

The purpose of this memorandum is to establish a management agreement between CO and OSI regarding the management, operation, and maintenance of DMS usage of Siebel EAI Query Transactions for Title Profile data. This agreement will govern the relationship and allocation of responsibilities between CO and OSI, including designated managerial and technical staff, in the absence of common management authority.

1.4 Authority

The authority for this agreement is based on *eDeposit Program Charter, Version 1* dated March 24, 2010

2 BACKGROUND

2.1 History

The Electronic Deposit Program (hereafter referred to as "eDeposit") is part of the Library of Congress's long-term goal to acquire electronic works published in the United States that fit within the Library's selection criteria through mandatory deposit. The program seeks to preserve, secure, and provide access to these works in a manner that benefits Congress and the American people while safeguarding the rights of, and minimizing the burden to, copyright holders. The eSerials initiative supports the Library's Strategic Goal - Sustain an Effective National Copyright System and the Library's Enterprise Annual Objective C04 which is a high priority initiative for the Library.

In order to advance efforts to acquire electronic works through mandatory deposit, the eDeposit Program will work with Library service units to define internal procedures and implement information technology infrastructure and software application systems needed to acquire, provide access to, and preserve electronic works beginning with electronic serials content in Fiscal Year 2010. The core functionality of the system was completed with the release of the eSerials Soft Launch in October of 2011 with a subsequent update release completed in May 2012.

Currently, the eSerials program has started an initiative for the development and implementation of system-to-system functionality allowing larger publishers to submit multiple large deposits automatically bypassing the original Soft Launch design of an eCO front-door which is single treaded and cumbersome for the larger publishers to use.

2.2 Description of Requirement

For the eDeposit system to work as intended a title profile is required. The title profile provides essential data that identifies a particular publication. This data is manually entered into and housed within the eCO System and is currently sent to the Delivery Management System (DMS) when the publisher submits a delivery through the eCO Front Door. The system-to-system functionality currently under development by Office of Strategic Initiatives (OSI) requires the DMS to display current live title profile data stored in eCO.

Specific requirements are:

- Any requirement not explicitly described in this document is out of scope

- Implementation of the Siebel EAI DMS Query shall not require any code changes to the eCO System
- Implementation of the Siebel EAI DMS Query shall use out-of-the-box functionality provided by Siebel
- A separate EAI Web Connection will be provided to DMS for https queries
- The DMS system is limited to 100 transactions per day (+ / - 5)
- eCO would limit connections to 20 concurrent connections per day
- Any changes or clarifications to the DMS Query or any requirement referenced in this document after formal authorization will follow CTO Change Management Practices (see Appendix A)
- The DMS system shall, via an https query to eCO (as described in section 1.8), read Title Profile and Status values, import them into DMS, and use these live values to process System-to-System files from the publisher into SR deliveries
- eCO will send case data along with title profile and SR status information
- The eCO System shall provide the DMS system with live Title Profile and Status data to support the review process of SR deliveries by CAD and LS.
- Mandatory Title Profile and Status values shall have been entered by CAD into eCO prior to the initial delivery.
- The eCO system must be capable of sustaining a maximum response time of 15-30 seconds for a maximum of 105 URL queries (testing data: < 1 minute for 1000 queries)
- Where maximum response time exceeds 30 seconds per transaction, CO may request that the DMS system halt https queries until performance issues are resolved
- The eCO system must be capable of sending an immediate error message in response to a failed query, i.e. SR/Title not found and/or other errors as provided and supported by COTS product. Examples of known error messages for dedicated EAI https transactions are provided below. (Actual error messages may vary as this transaction is performed by a system, and not by a human, via browser). eCO will not provide any custom/specific error messages and DMS is expected to handle any exceptions raised through this transaction.
 - Internet Explorer cannot display the webpage
 - Unable to connect
 - Can't establish a connection to the server
 - The site could be temporarily unavailable or too busy. Try again in a few moments.
 - If your computer or network is protected by a firewall or proxy, make sure it is permitted to access the Web.

- SR not found: <?xml version="1.0" encoding="UTF-8" ?><Response>SR Number Not Found</Response>
- 500 - Internal server error. There is a problem with the resource you are looking for, and it cannot be displayed.
- The server you are trying to access is either busy or experiencing difficulties. Please close the Web browser, open a new browser window, and try logging in again
- Page not found
- If the DMS system encounters a timeout error, it shall retry the query the following day, based on configuration requirements. Same day retries are not possible due to the current 105 queries/day limitation.
- The Siebel EAI Query connection pool will be configured in the eCO test, development, preprod, and production environments
- DMS is not requesting any changes to current URL eCO http query.
- Example of current test URL: <https://ecotstweb.loctest.gov/DMSInterface/start.swe?SWEExtSource=SRStatus&SWEExtCmd=Execute&SWEExtData=1-443988636>
- The eCO Operations & Maintenance team will work with OSI technical staff to resolve any errors or exceptions outside of CTO control.

AM
9/25/12

2.3 Assumptions

- The DMS http Query for Title Profile Data as documented in this MOU will satisfy all of the requirements listed in section 2.2 without any change to the eCO System other than the administrative change to setup a separate interface connection.
- The current hardware configuration will support the addition of a new Siebel Web Interface Connection. (Otherwise, this MOU becomes null and void)

2.4 Technical Description of Query

In order to process initial and subsequent deliveries sent from eCO to DMS, DMS needs the SR Status and Title Profile data. The SR Status is required at the time the delivery is sent in order to ensure that the correct workflow in DMS is initiated, and the Title Profile information is required to help identify the contents of the delivery and to associate file names with the current journal/volumes/issues. The success of these business processes relies upon the use of live data obtained from eCO to maintain data integrity between eCO and DMS. The current eCO Front Door process sends the case information XML to the DMS when the case is approved by CAD in eCO Public Sector and the title profile information XML to DMS when the publisher pushes a delivery through the Front Door.

The objective is to apply this established process, in just-in-time, to System to System. System to System is a backdoor delivery process whereby publishers push content to an ingest file-system on a Library of Congress server, set up for that purpose, and DMS/CTS processes those files into distinct SR deliveries for ingest into DMS and review by CAD and Library Services Acquisition staff.

The following eCO Title Profile fields, including Status, are currently automatically sent by eCO as an xml notification to DMS, when CAD approves a Demand to a publisher, and when the publisher loads a delivery to the front door only.

- ISSN
- Title
- Subtitle
- PartName
- PartNumber
- FullTitle
- SRNumber
- Status
- Publisher
- CaseNum
- CaseStatus
- CaseSubStatus
- Article Format
- Other Article Formats
- Article Publication Comments
- Article Publication Pattern
- Bibliographic Metadata Format
- Issue Format
- Issue Publication Comments
- Issue Publication Pattern
- Package Delivery Comments
- Package Delivery Pattern
- Packaging Format
- Package Manifest Available

- Package Manifest Filename
- Package Description
- Package Naming Pattern
- TOC Available
- TOC Filename
- Volume Publication Comments
- Volume Publication Pattern
- File Location
- Terms Of Use
- Issues Requested
- URL

In each case, eCO sends an http request containing an XML structure to DMS. DMS validates, parses, and stores the data for display to users in its interface. There is error handling and logging at each step.

For System to System, DMS will query eCO using a separate Siebel Web Interface Connection.

2.5 Architecture



1. DMS Sends a https request to eCO using URL:
`https://[Environment]/DMSInterface/start.swe?SWExtSource=SRStatus&SWExtCmd=Execute&SWExtData=[SR Number]`

Where:

Environment = eCO internal URL specific to environment

SR Number = Service Request Number

2. Load balanced eCO web servers receives the request and sends it to eCO application servers

3. Load balanced eCO application servers receives the request, process it by connecting to database and responds back with the below XML

If SR number is not correct, DMS will receive response from eCO as:

```
<?xml version="1.0" encoding="UTF-8" ?><h1>SR Number Not Found</h1>
```

If SR number is correct, DMS will receive response from eCO as:

```
<?xml version="1.0" encoding="UTF-8"?>
<Title>
<ISSN></ISSN>
<Title>Primary Title</Title>
<Subtitle>Primary Subtitle</Subtitle>
<PartName>Part # for Primary Part Name</PartName>
<PartNumber></PartNumber>
<FullTitle></FullTitle>
<SRNumber></SRNumber>
<Status>Open</Status>
<Publisher></Publisher>
<CaseNum></CaseNum>
<CaseStatus>Closed</CaseStatus>
<CaseSubStatus></CaseSubStatus>
<Bibliographic><Article_Format>
</Article_Format><Other_Article_Formats>
</Other_Article_Formats>
<Article_Publication_Comments></Article_Publication_Comments>
<Article_Publication_Pattern></Article_Publication_Pattern>
<Bibliographic_Metadata_Format></Bibliographic_Metadata_Format>
<Issue_Format></Issue_Format>
<Issue_Publication_Comments></Issue_Publication_Comments>
<Issue_Publication_Pattern></Issue_Publication_Pattern>
<Package_Delivery_Comments></Package_Delivery_Comments>
<Package_Delivery_Pattern></Package_Delivery_Pattern>
```

```

<Packaging_Format></Packaging_Format>
<Package_Manifest_Available></Package_Manifest_Available>
<Package_Manifest_Filename></Package_Manifest_Filename>
<Package_Description></Package_Description>
<Package_Naming_Pattern></Package_Naming_Pattern>
<TOC_Available></TOC_Available>
<TOC_Filename></TOC_Filename>
<Volume_Publication_Comments></Volume_Publication_Comments>
<Volume_Publication_Pattern></Volume_Publication_Pattern>
<FileLocation></FileLocation>
<Terms_Of_Use></Terms_Of_Use>
<Issues_Requested></Issues_Requested>
<URL></URL>
</Bibliographic>
</Title>

```

3 IMPACT ON ECO SYSTEM

This functionality affects two web servers, two integration servers, and database server. Given the high availability and load balanced, architecture of application/web server and a dedicated database server in production, major impact is not anticipated. To substantiate, testing similar functionality in development environment reveals no performance impact where it took less than a minute for 1,000 queries.

To eliminate any concerns, O&M will create monitoring scripts for component availability as well as watch for DBA's alert on long running queries. If the DMS query is running for prolonged time (triggers a DB alert), O&M team will terminate the job and alert CTO accordingly.

** O&M 9/25/12*

4 ROLES AND RESPONSIBILITIES

4.1 Query Design

CO will configure the Siebel Web Interface connection to meet the requirements as described in this document.

OSI will configure the DMS http query within the constraints documented in the requirements section (Section 2.2).

OSI will configure errors and alerts when the constraints documented in the requirements section (Section 2.2) are about to be exceeded.

4.2 Change Management

All changes to the eCO System will follow official Change Management (CM) practices (See Appendix A). DMS representatives will have the opportunity to participate during the CM review, impact, and testing activities.¹²

All changes to DMS will follow the established Change Management (CM) practices (See Appendix B). ECO System representatives will have the opportunity to participate during the CM review, impact, and testing activities.

4.3 Requests to stop Query

If there exists the opportunity for unprecedented usage of the eCO System (such as last minute submissions prior to an increase in fees) or there is evidence to suggest performance issues related to the DMS Query, the CO may temporarily suspend the DMS Query until anticipated peak usage subsides or performance issues are resolved.

The DMS Query will be suspended by OSI until authorization by CO has been given to proceed.

4.4 Procedures

- OSI will follow CTO policies and procedures for anything related to the eCO System.
- CO will follow OSI policies and procedures for anything related to DMS.
- CO and OSI will document Standard Operating Procedures (SOPs) for those areas where both parties have responsibilities. These SOPs shall define all of the steps to complete a particular activity and which group is responsible for each task within the activity. The following SOPs are included in this MOU
 - eCO Change Management SOP

¹ CTO has a centralized CM Process that supports all production systems, including eCO.

² CTO has an Emergency CM Process that is not included in this MOU, but applies to all emergency releases (including eCO System).

- o DMS Configuration Management Plan

5 COMMUNICATION

5.1 Procedures

Frequent formal and informal communications are essential to ensure the successful management and operation of the Siebel Web Interface transactions. The parties agree to maintain open lines of communication between designated staff at both the managerial and technical levels.

Electronic written communication is the preferred method of communication and all decisions should be documented. The two parties agree to designate, provide, and maintain contact information for management and technical leads for the eCO System and DMS.

Furthermore:

1. Copyright Acquisitions Division will notify eCO and DMS designated staff when initial deliveries are expected.
2. With the exception of emergency situations, CTO will provide at least five (5) business days advance notification of eCO System outages due to scheduled regularly maintenance.
3. With the exception of emergency situations, CTO will provide at least five (5) business days advance notification where situations warrant suspended use of the Siebel Web Interface Transactions.
4. Changes to either system will be communicated as defined in the system's CM plan (See Appendix A).

Primary Contacts within Scope of this MOU

CO Primary Contact	Jacqueline Smith	7-7349	jsmith@loc.gov
OSI Primary Contact	Anupama Rai	7-3619	arai@loc.gov
CTO Technical Lead	Jerry Tuben	7-5293	jtub@loc.gov
eCO Technical Lead	Vijay Alan	7-7304	valan@loc.gov
DMS Technical Lead	Tong Wang	7-9742	twan@loc.gov
CAD Representative	Stephen Want	7-6781	swant@loc.gov
LS Representative	Emily Howie	7-5771	emho@loc.gov
CTO COP/ISSO	Jannie Grant-Gillus	7-1716	jgrant@loc.gov

To safeguard the integrity and availability of the applications and data stored, the parties agree to provide notice of specific events within the timeframes indicated in the sections below: (4.1-4.4)

5.2 Meetings

The primary means of communication to deal with complex issues shall be meetings. Both parties agree to the following:

- Meetings on urgent (emergency) issues will require immediate action
- Either party can call for a meeting
- The meeting request must include the type (routine or urgent) and the reason for the meeting
- The party calling the meeting will provide a written agenda prior to the meeting. They will also provide a written summary of the meeting reflecting the topics discussed, the major points of discussion within each topic, and all decisions or conclusions reached
- On an annual basis, at a minimum, the parties will meet and discuss the MOU with the goal of updating it as necessary.

5.3 Security Incidents

DMS and/or eCO technical staff will notify their designated counterparts and the ISSO when a suspected security threat is detected (for either system), so that they may assist in determining whether the system (eCO or DMS) or any of its subcomponents has been compromised and take appropriate security precautions. The ISSO will notify the LCSOC or other appropriate personnel per current LC security policies and procedures. Telephone contacts will be immediately documented in a follow-up email. The primary contacts listed in the table in section 4 will receive formal notifications within five (5) business days after detection of the incident(s).

5.4 Disasters and Other Contingencies

Technical staff will immediately notify their designated counterparts in the event of a disaster or other contingency that disrupts the normal operation of one or both of the systems. In addition, the event should be handled in accordance with the incident response SOP and/or COOP/DR Plans for the respective system.

5.5 Personnel Changes

The parties agree to provide written notification of the separation or long-term absence of their respective system primary contacts (section 4). In addition, both parties will provide notification of any changes in point of contact information.

5.6 Suspension

Should the use of the Siebel Web Interface Transactions by DMS demonstrate a negative impact on the production of the eCO System's performance or the ability of CTO (or DMS) to conduct planned updates – the connection may be suspended until performance and other issues have been addressed.

In these cases, CO will provide at least five (5) business days advance notification of the suspension.

6 COST CONSIDERATIONS

Any future effort that requires CTO contract resources will require additional funding and a separate task or contract vehicle. The scope for the current contracts supporting the eCO System does not include any effort to support eDeposit related functionality.

7 CHANGE & CONFIGURATION MANAGEMENT

Any changes to the eCO System or DMS will be communicated between CTO and OSI primary contacts to identify the impact of the change.

Any change, with the exception of emergency security changes needed to stop an immediate security threat, will be implemented in a development, test & pre-production environments, and tested successfully by all parties before implementation in production.

CO will operate under change and configuration management processes to manage changes to the eCO System. DMS will participate in these processes as appropriate. (See Appendix A – eCO Change Management SPO).

OSI will operate under change and configuration management processes to manage changes to the DMS. CO will participate in these processes as appropriate. (See Appendix B – DMS Configuration Management Plan).

Any changes made to the hosted production environment must adhere to the ITS Configuration Management Process.

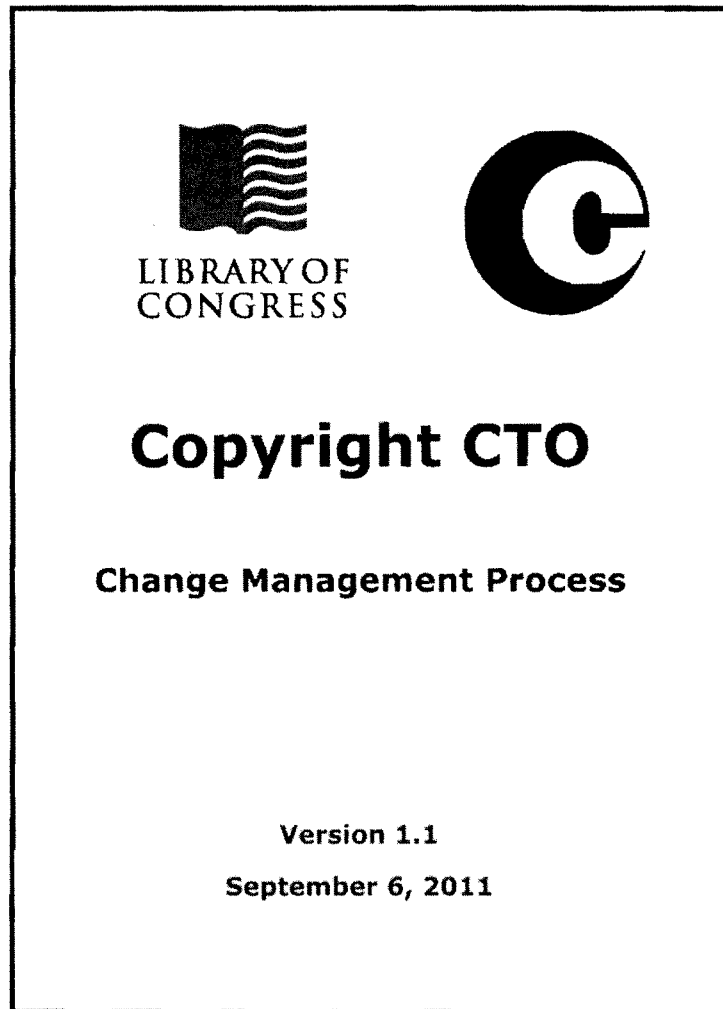
7.1 Material Changes to the Application Configuration

A material change is defined as a substantial configuration change to one system that will impact the other system. When either the CO or OSI identifies a change that may impact their counterparts, this change should be communicated in writing at least one (1) month prior to testing and scheduled implementation of the proposed change. The initiating party agrees to conduct a risk assessment based on the new system architecture (or configuration) and to brief their counterparts one (1) month prior to implementation. Notice of a change does not guarantee that the change will be approved for implementation. All changes shall follow the established CM process for the system impacted by the change.

7.2 Emergency Configuration Changes

Emergency changes are defined as those that are necessary to ensure that the application continues to fulfill its mission. While these changes are generally not material in nature, emergency changes that are material can be made unilaterally, but must be immediately followed up within 15 minutes with an email message and phone call to the primary contact. Within 24 hours, a written notice must be delivered to the other party and an emergency meeting must be called to discuss the change(s).

APPENDIX A – CTO CHANGE MANAGEMENT PROCESS SOP



DOCUMENT CONTROL

**Change
Record**

Date	Author	Version	Change Reference
6/13/2011	G. Schlesier	0.1	Initial Draft
6/22/2011	G. Schlesier	0.2	Incorporates comments from D. Wolford
6/29/2011	G. Schlesier	0.3	Incorporates additional review comments from G. Sonnemann
7/5/2011	G. Schlesier	1.0	Initial Release
9/6/2011	G. Schlesier	1.1	Incorporates additional comments from J. Sheppard in ITS and D. Ament

Reviewers

Name	Position
Douglas Ament	Director, CTO
Danise Wolford	Deputy Director, CTO
Jerry Tuben	Chief Architect, CTO
Loretta Freeman	Supervisor of New Product Support, CTO
Gail Sonnemann	Supervisor of Legacy Systems/Data Integrity, CTO
Stephen Oswald	eCO Software Release Manager

Security Category: Low

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1. PURPOSE/SCOPE

Security Category: Low

The Change Management Process provides the Copyright Technology Office (CTO) with a method of controlling and monitoring configuration changes within systems and the Copyright environment. The Change Management process covers the management of software, databases, hardware, and applications in Copyright. Change is defined as any activity that alters the physical configuration of a baselined system or component and how it operates. The key objectives of the Change Management (CM) process are to:

- Identify changes in advance and control and manage them;
- Ensure that requested changes are justified, and that affected systems and deliverables are identified and modified accordingly;
- Reduce errors, defects, and unplanned outages due to changes in the environment;
- Obtain authorization to proceed with the changes and assign them to appropriate individuals to be facilitated;
- Monitor the progress of the changes and ensure closure;
- Execute a structured process that keeps everyone informed on technology changes in the environment;
- Document the system for future supportability

2. ROLES AND RESPONSIBILITIES

Role	Responsibility
Requestor	<ul style="list-style-type: none"> • Vets all requests through the appropriate management chain in their office before submission • Submits the Request For Change (RFC) to the CTO CM Administrator • Provides supporting documentation as needed or when requested • Note: Requestor could be anyone (e.g., internal to the helpdesk, internal to CTO, from an external department, a customer, or end-user, etc...)
CTO Staff	<ul style="list-style-type: none"> • Modify RFC content and supporting documentation • Work with the Change Manager, IRB, and eCO Release Manager to determine severity, scope, impact and risks • Provide Subject Matter Expertise (SME) • Provide project planning and testing • Coordinate with Information Technology Services (ITS) • Assist in communicating status to the Requestor • Serve in various roles within the process (i.e., Release Manager, Change Manager, IRB member, Analyst, SME, etc...)

Security Category: Low

Role	Responsibility
Change Manager	<ul style="list-style-type: none"> • Triage, update, and manage all RFC • Assign RFCs to an Analyst for review and analysis of the problem and requirements definition as needed • Move RFCs through the CM process • Facilitate the validation, classification, prioritization and approval of RFCs • Coordinate the content and agenda for the Internal Review Board (IRB) meetings • Coordinate communication throughout the process • Coordinate and expedite emergency requests • Review final Release in order to ensure that RFC requirements are met and update CMDB accordingly
CTO Analyst	<ul style="list-style-type: none"> • Validate & update the RFC content and supporting documentation • Work with business and technical SMEs (including requester) as well as the Development Team to define detail requirements • Provide CM liaison support to Copyright Offices
CTO IRB Board	<ul style="list-style-type: none"> • Evaluate & review RFC for impacts on the environment (e.g. system security, data integrity, system architecture, system design, data model, impact on other processes that share components, etc.) • Approve (if a voting member) RFC for disposition • Ensure that requirements, test plans, rollback procedures, etc... are complete and in order to proceed to the next phase of the process • Act in accordance with the CTO IRB Charter • Provide SME support and/or resources as needed
ITS Resource	<ul style="list-style-type: none"> • Support the CM process as needed • Coordinate or act as Infrastructure SME when RFC components impact Infrastructure operations • Facilitate the communication between CTO and ITS resources • Coordinate ITS resource availability
eCO Steering Committee Member	<ul style="list-style-type: none"> • Coordinate through the eCO Release Manager • Determine final scope of eCO software releases with respect to enhancement or maintenance changes to the eCO system • Act in accordance with the CTO Steering Committee Charter

Security Category: Low

Role	Responsibility
Software Development Team Member	<ul style="list-style-type: none">• Develop, test, and implement eCO software changes• Develop, test, and implement eCO administrative changes• Assist in identifying RFC impacts to the system• Communicate additional requirements to the Analyst, IRB, or Change Manager• Provide SME support as needed• Provide supporting documentation as needed
O&M Group Member	<ul style="list-style-type: none">• Plan, test or coordinate the implementation of changes• Assist in identifying RFC impacts to the system• Communicate additional requirements to appropriate parties and CTO Manager(s)• Provide SME support as needed• Ensure that documentation is kept up-to-date and/or provide supporting documentation as needed

3 ENTRY CRITERIA AND INPUTS

3.1 Entry Criteria

This process starts when a Request For Change (RFC) is submitted for consideration by a Requester.

Security Category: Low

4 PROCESS STEPS

The CTO change Management Process is outlined in Figure 1.

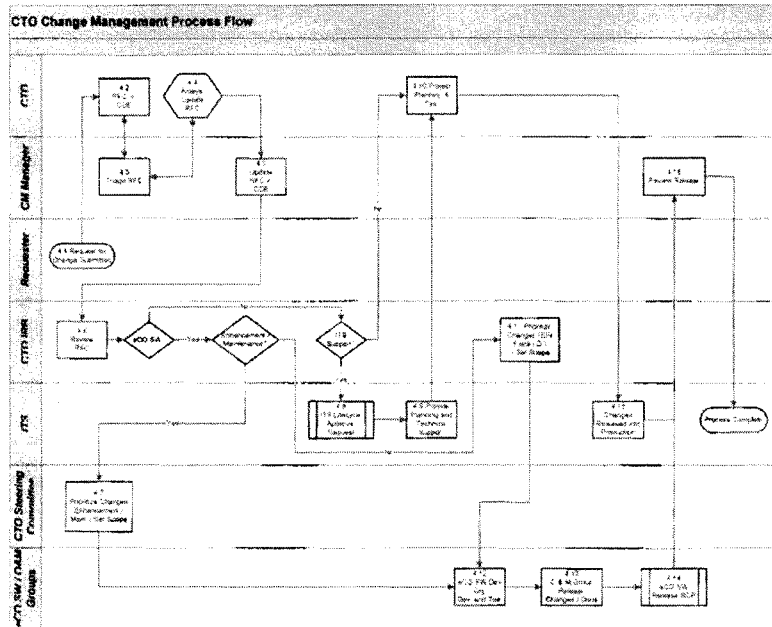


Figure 1 - CTO Change Management Process

As the RFC moves through the Configuration Management (CM) workflow, its associated status code will change to reflect where it is located within the process workflow. When the RFC is submitted initially, the status will automatically be set to "S-Submitted."

The following table defines all of the various RFC status codes, and what each one represents:

Code	Name	Description
S	Submitted	Request submitted by requestor, but not reviewed yet by the IRB
R	Requirements Complete	Request updated with full justification, requirements, and supporting documentation

Security Category: Low

Code	Name	Description
A	Approved	Request approved by the IRB
D	Declined	Request not approved by the IRB
P	Pending	Request approved by IRB, waiting to be scheduled by eCO steering committee or CTO management for scheduling
H	Hold	Request put on hold
C	Scheduled	Request scheduled and has an assigned date for implementation
I	Implemented	Request has been implemented
W	Withdrawn	Request canceled by Requestor or Overcome By Events (OBE)

Table 1 - RFC Status Codes

4.1 Request For Change (RFC) submitted

All *Copyright Request For Change (RFC) forms* (RFCs) are submitted, logged, and tracked through the CTO Administrator. The Requester may be Copyright staff, CTO staff, other Library of Congress (LOC) staff, or external customers & partners. In this initial stage the change request status is "**S-Submitted.**"

4.2 RFC in CMDB

The information on the *Copyright Request for Change (RFC) form* is imported into the Change Management Database (CMDB) for tracking by a designated member of the CTO staff.

4.3 Change Manager Triage RFC

The RFC is then sent to the Change Manager for review, update. The Change Manager must review each RFC and determine if the information submitted is complete in order to move to the next step. Once this is complete, the RFC will be assigned to a CTO Analyst to validate and further develop the requirements.

4.4 Analyst Update RFC

The Analyst will review the submitted RFC and determine the following at a minimum:

Analysis Areas	Description	Breakdown
Validity	Is the described problem really a fault?	<ol style="list-style-type: none"> 1. User error 2. Desktop Environment 3. AHE Issues 4. External systems

Security Category: Low

Analysis Areas	Description	Breakdown
		failure (e.g. Pay.Gov)
Requirements/Description	Description of the change and the detail requirements both technical and business	<ol style="list-style-type: none"> 1. UI change/process flow change/Data change 2. Navigation (Bus Object, Screen, View, etc...) 3. Business requirements 4. Technical requirements
Rationale	Sound justification for the requirement	<ol style="list-style-type: none"> 1. Need vs. want 2. Driving factors 3. ROI or value to organization
Root Cause	<p>What sequence of events lead up to the request?</p> <p>What conditions allowed the event to occur?</p> <p>What risks could be caused by the event?</p>	<ol style="list-style-type: none"> 1. Identify potential risks 2. Develop preventive action 3. Identify root causes 4. Identify further risks
Source	Who raised this requirement and does it have management approval? Is all the contact information available?	<ol style="list-style-type: none"> 1. Business Owner or Technical Owner 2. Business unit 3. Contact
Dependencies	List of other requirements that have some dependencies or interfaces	<ol style="list-style-type: none"> 1. Impact on process flow (sub-systems, other business areas impacted) 2. Impact on Existing data 3. Impact of data structure 4. Impact on organization

Security Category: Low

Analysis Areas	Description	Breakdown
Support Material	Updated supporting material to assist in defining the change.	Screen prints, logs, error messages, white papers, conceptual design docs, process workflow, "To Be" documentation, etc...
History	Background on change	Created, changed, deleted, etc...
Severity	What is the urgency of the change	4=Emergency 3=High (Priority) 2=Medium (Maint.) 1=Low (Maint)
Type of Change	What is being requested?	1. Defect/Error 2. Documentation 3. General Question 4. New Functionality 5. Performance issue 6. Training 7. Other
Level of Effort	What is required to implement this change?	1. Hours requirement 2. Additional Software/Hardware requirements 3. Skills set requirements

The CTO Analyst may, and often will, work with the Requester and the cognizant area SME to determine this information. When all of these items have been addressed, the Change Manager is notified that the Change Request is ready for CTO IRB Review.

4.5 Update RFC in CMDB

After the analyst completes the full requirement gathering and analysis, the Change Manager must review the data and determine if the submission is ready for CTO IRB review. Once the requirement gathering is complete the RFC is placed in "**R-Requirements Complete**" status. The RFC is updated with the additional information, reviewed by security, and submitted to the CTO IRB for review on the *Copyright Change Management Form (IRB CMF)*.

Security Category: Low

4.6 CTO IRB to Review RFC

Once the RFC has been passed to the CTO IRB on the *Copyright Change Management Form (CMF)*, the CTO IRB must review the RFC and ensure that the requirements and supporting documentation are complete and the change is technically sound before assigning it further resources or passing it onto the appropriate group for implementation.

Once the RFC is reviewed by the IRB, the Change Manager will update the status of the RFC within the CMDB to either **"A-Approved"**, **"D-Declined"**, or **"H-Hold"** and ensure any additional information requested by the CTO IRB is obtained.

If the RFC status is set to **"A-Approved"**, then the Change Manager will route it for prioritization or planning. If it is eCO related and it involves functional maintenance or feature enhancement, then it is sent forth to the eCO Steering Committee and prioritized for incorporation into the eCO system. Otherwise, it is reviewed by the IRB and expedited for incorporation into the eCO system. If it is not eCO related at all, it is sent forth to CTO or ITS for additional planning and implementation.

If the RFC status is set to **"D-Declined"** or **"H-Hold"**, then it is routed back to the Change Manager to notify the Requester. When the RFC is given a **"H-Hold"** status designation, this usually indicates that the information provided to the CTO IRB was incomplete or erroneous. In these cases, the Change Manager will re-assign the RFC to an analyst who, in turn, will work with the Requester and the appropriate SME(s) to further define and clarify the RFC or its information.

In some instances, the RFC may be Overcome By Events (OBE) or the requester may choose to cancel the RFC. When this occurs, the RFC status is set to **"W-Withdrawn"** within the CMDB. This may occur at any stage of the Change Management process.

4.7 eCO Steering Committee Prioritize Changes and Set Scope

If the approved change constitutes an enhancement to the eCO system or it encompasses maintenance items which are not high severity, then the Change Request is prioritized as part of a software scope exercise overseen by the eCO Steering Committee and the eCO Software Release Manager. Each RFC is then assigned to an upcoming release or put into a list for consideration in the next release.

The RFC is given a status of **"P-Pending"** or **"C-Scheduled"** depending on how the eCO Steering committee prioritizes the RFCs.

4.8 ITS Lifecycle Approval Request

If ITS support is required, the project manager must submit a CR request to the ITS WCC in accordance with the *ITS Lifecycle Workflow*. The RFC is given a status of **"P-Pending"** or **"C-Scheduled"** depending on the severity.

4.9 Provide Planning and Technical Support (ITS)

If ITS support is required, then an assigned CTO resource will work with ITS to plan, schedule, and incorporate the change into production. The ITS group will provide planning, and technical support as needed in accordance with the governing MOU and the *ITS CM process*. In the event that a MOU does not exist, the ITS group will provide inputs into the charter or project plan as required by CTO management.

4.10 Project Planning and Test (CTO)

All RFCs will be assigned to a Project Manager (PrM) within CTO to incorporate into a current project or to address as a new project. The RFC is given a status of "**P-Pending**" or "**C-Scheduled**" depending on the severity. The assigned Project Manager (PrM) must work with the staff and contractors to implement the change to the system or hardware.

4.11 CTO IRB Prioritize Changes and Set Scope

If the approved eCO-related RFC is classified as an emergency fix, it encompasses fiscal and data integrity items, it is regulatory in nature, or it resolves a problem which hampers production then the Change Request falls under the purview of the CTO IRB and the eCO Software Release Manager for planning and prioritization. The RFC is given a status of "**C-Scheduled**".

4.12 eCO Software Development Group Development and Test

As each release scope is finalized through the eCO Steering Committee and the eCO Release Manager, the list of RFC and the associated requirements are provided to the eCO Software Development Group to design and test in accordance with the software development cycle (SDLC). At this point the RFC Status has already been assigned a status of "**C-Scheduled**" during planning and prioritization. Before the software is released, it must be reviewed against the requirements in accordance with the System Readiness Review (SRR) procedure.

4.13 eCO O&M Group Provides Release Changes / Documentation

The eCO O&M group provides the release-associated documentation to CTO for distribution. In addition, the eCO O&M group updates and submits the system documentation to the IRB for acceptance.

4.14 eCO Software Release

The eCO software is provided to the ITS group to migrate to production IAW the *eCO Software Release Standard Operating Procedure (SOP)* and the *ITS Change Management Process*.

4.15 Changes Released into Production

Upon completion of the software development & test or project planning & test phases the RFC and associated documentation are migrated to production in accordance with Standard Operating Procedures (SOP) and the ITS or CTO Change Management Process.

4.16 Review Release

Any required closeout documentation is submitted to the Change Manager and the RFC status is changed to **"I- Implemented"** by the Change Manager.

5. EXIT CRITERIA AND OUTPUTS

5.1 Exit Criteria

The process is complete when the requester is satisfied that the implemented solution addresses the RFC that was submitted and an After Action Report is submitted that details that the RFC has been successfully implemented. The change is also considered complete if a Requestor submits a request to withdraw the change (**"W-Withdrawn"**) or the CTO IRB declines to implement the change (**"D-Declined"**). In both cases the Change Manager will communicate the RFC closure to the Requester and update the RFC Status within the CMDB.

5.2 Outputs

The following is a list of artifacts that are generated during Change Management process:

- Request For Change Form (RFC)
- Record Entry in the CMDB
- IRB Change Management Form (CMF)
- IRB Change Management Agenda
- Analysis Documentation
- Technical Change Documentation
 - Test Plans
 - Rollback Plans
 - Updated Software or HW Configuration
 - Installation Procedures
 - Network Diagrams
 - etc...
- Artifacts demonstrating approval of RFC (email, minutes or signature sheet)
- Artifacts demonstrating approval of solution implementation (email, minutes or signature sheet)
- After Action Report & Results
- Test Report & Results

Security Category: Low

- Updated eCO SDD (if required)
- Updated eCO dictionary (if required)
- Analysis documentation including sign-offs
- Updated CTO Product Documentation (Certificate specification, public record documentation, etc)

6 RELATED ASSETS

6.1 CTO Documentation

- CTO IRB Charter
- eCO Steering Committee Charter
- Project Management Plans
- Project Charters
- eCO Software Release Standard Operating Procedure (SOP)

6.2 ITS Documentation

- ITS Change Management Process

6.3 Other

- CTO/ITS Memorandum of Understanding (MOU)

7. MEASUREMENTS

No metrics will be collected for this process. In the future, suggested metrics might be:

- Number of Submitted RFCs categorized by department and severity
- Number of RFCs categorized by CR/PR and Department
- Number of RFCs categorized by RFC Status Category
- Number of Implemented RFCs
- Average Age of Submitted RFCs
- Average Age of Pending RFCs

8. PROCESS VERIFICATION

The following artifacts will serve as indication that the process has been successfully completed:

- Entry in the CMDB
- Artifact demonstrating approval of RFC (email, minutes or signature sheet)
- Artifact demonstrating approval of solution implementation (email, minutes or signature sheet)

Security Category: Low

9. TRAINING

No additional training is required for this process. It is recommended that all staff involved in the process familiarize themselves with the steps. Additional questions regarding this process can be submitted to the Change Manager.

10 ACRONYMS

Acronym	Description
CMDB	Change Management Database
CM	Change Management/Change Manager
CMF	Change Management Form
CR	Change Request
CTO	Copyright Technology Office
eCO	Electronic Copyright Office
IAW	In Accordance With
IRB	Internal Review Board
ITS	Integrated Technical Services
MOU	Memorandum of Understanding
OBE	Overcome by Events
PR	Problem Report
PrM	Project Manager
RCF	Request for Change
SME	Subject Matter Expert
SOP	Standard Operating Procedure

Security Category: Low

APPENDIX B – DMS CHANGE MANAGEMENT PROCESS SOP



**Delivery Management Service
(DMS)
Configuration Management Plan**

**Version 1.1
July 30, 2012**

Security Category: Low

[illegible]

DMS CONFIGURATION MANAGEMENT PLAN

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DMS CONFIGURATION MANAGEMENT PLAN

1 INTRODUCTION

The purpose of this Configuration Management Plan (CMP) is to identify, define and describe the configuration management process for the Delivery Management Services (DMS). This plan should be used as a guideline on the process of how changes should occur.

1.1 Delivery Management Service (DMS)

The goal for the Delivery Management Service (DMS) is to support the viewing of deliveries, and the processing of those deliveries necessary for addition of the eSerial content to the Library's collections via the eDeposit for eSerials program, and to manage access to those files. DMS stores all descriptive and rights metadata that associates files with digital objects, e.g., journals, volumes, issues, and articles, as well as tracing files back to Copyright Service Requests. DMS enables collection management and preservation functions, as well as basic reporting.

DMS consists of a Django web application with a MySQL database, which will run in the Library of Congress production application hosting environment, specifically the Sun31 server, with content copied to long-term storage on the Sun29 STK Tape Library 8500.

1.2 Scope

The CMP covers all changes that are made to Delivery Management Service (DMS) and related documentation. Additionally, all configuration and certification and accreditation documentation related to these systems is under the control of this CMP. The specific items under control of this CMP are:

- Django web application
- MySQL database

2 ROLES & RESPONSIBILITIES**2.1 Change Agent**

The change agent is defined as any person or group submitting a request to make a modification to any element under configuration management via this configuration management plan. This includes configurations and documentation. All DMS development staff are responsible for documenting and utilizing the standardized change management procedures in this CMP in the execution of their duties.

2.2 Information System Security Officer/Configuration Manager

The DMS ISSO/Configuration Manager reviews and makes recommendations concerning Change Requests (CRs) in terms of security risk that a given change would pose to the system. The ISSO is responsible for evaluating potential risk and making a recommendation to the Change Control Board (CCB). Additionally, the ISSO/Configuration Manager is responsible for initiating any update of the certification documentation and notifying the Information System Security Manager (ISSM) and Certification Official (CO) of changes to any certified system that would

DMS CONFIGURATION MANAGEMENT PLAN

materially alter the security posture of the system. Examples of this are adding new networked applications with different functions.

2.3 Change Control Board

The DMS Change Control Board (CCB) is responsible for ensuring any element under this CMP is managed and operated in accordance with IT Security directives. The CCB is comprised of the DMS Development Project Manager, a representative from the ILS Systems Office, and a representative of the ABA division in Library Services. The DMS Development Project Manager may expand the CCB as required or delegate approval of a given Change Request as needed. The DMS Development Project Manager makes the final approval on any Change Request. DMS Development Project Manager can override the ISSO/Configuration Manager, though this must be clearly documented.

2.4 Documentation Configuration Manager

The Documentation Configuration Manager is the individual who ensures that documentation is consistent. The Documentation Configuration Manager is not responsible for creating the document content. The ISSO/Configuration Manager can also fulfill this role.

3 CONFIGURATION MANAGEMENT PROCESS

All changes to any element covered by this CMP must have a Change Request (CR) associated with any changes. There are two types of CRs.

- Change Request
- Emergency Change Request

3.1 Change Request

All planned changes must utilize the Change Request process. This process is described below and shown in **Figure 2 – Change Request Process**.

1. Submit Change Request (CR)

Submit the CR by completing the form provided in **Appendix A – Change Request Form** and attaching the form to a work reporting system (currently Remedy) request, assigned to the designated CR Configuration Manager. Lab testing results are required for all major system changes. The ISSO or CCB may reject the CR if there was not adequate testing.

For new software and hardware, the CR form is used and the following information is attached:

- Implementation Plan (includes rollback)
- Hardware/Software maintenance contract
- Documentation of changes per the ITS SDLC

2. Security Review

DMS CONFIGURATION MANAGEMENT PLAN

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For new software and hardware, the CR form is used and the following information is attached:

- Implementation Plan (includes rollback)
- Hardware/Software maintenance contract
- Documentation of changes per the ITS SDLC

2. Security Review

DMS CONFIGURATION MANAGEMENT PLAN

The ISSO/Configuration Manager will review the CR to determine what, if any impact the proposed change will have on the system and its associated C&A package. The ISSO/Configuration Manager may make a positive or negative recommendation. The reason for a negative recommendation must be documented in the CR. Regardless of the ISSO/Configuration Manager's recommendation, the CR, with the ISSO/Configuration Manager's comments is forwarded to the CCB.

3. CCB Review

The CCB will review the CR to determine what, if any impact the proposed change will have to the system on operations. The CCB may approve or deny the request. The reason for denial must be documented in the CR. Moreover, the ISSO/Configuration Manager may override the recommendation of the ISSO/Configuration Manager. If the ISSO/Configuration Manager's recommendation is overridden, the reason must be documented in the CR.

4. Perform Update

The DMS Development Project Manager will assign a responsible party to perform the system update in accordance with DMS Standard Operating Procedures. Note that certain changes do not affect any production system, but are instead changes to documentation covered by this CMP.

5. Update Documentation

Prepare any documentation updates. Documentation updates may include an entirely new version of the document or an updated section, table or diagram. In the case of an updated section, table or diagram, ensure that the update contains the proper section/figure/table number and labeling. Documentation updates are forwarded to the Documentation Configuration Manager.

6. Update DMS Document Repository

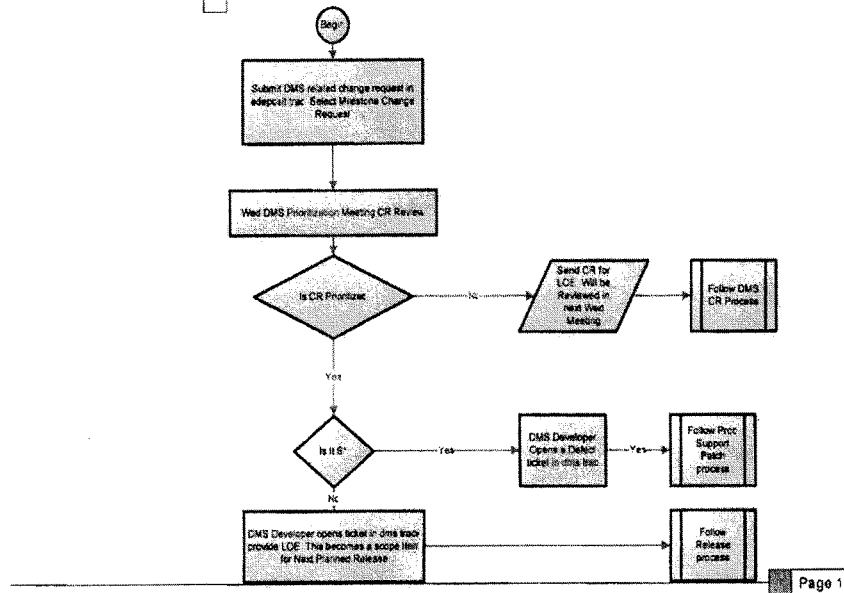
The Documentation Configuration Manager will ensure that the documentation is correctly updated and tracked by updating and formatting the particular document and filling out the DMS Tracking Sheet.

Figure 2 – Change Request Process

DMS CONFIGURATION MANAGEMENT PLAN

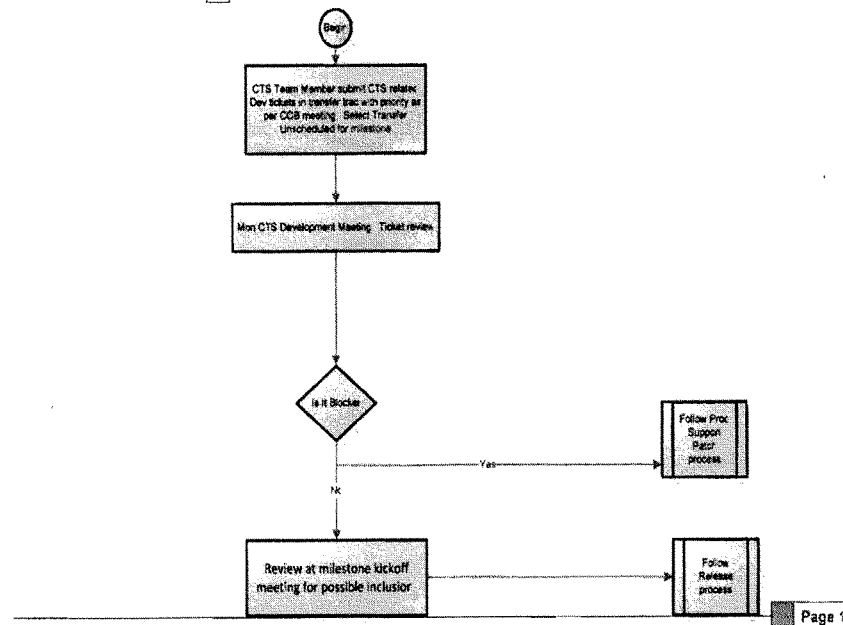
Wednesday, May 09, 2012

DMS CM Process



Page 1

Wednesday, May 05, 2012

CTS CM Process for DMS-Dependent Tickets**3.2 Emergency Changes**

Emergency Changes are performed to enable a non-operational system to become operational or to mitigate a newly discovered, high-risk, vulnerability. The following type of changes cannot be designated as Emergency Changes:

- Changes that solely apply to documentation
- Addition of software or hardware
- Removal of software or hardware

This emergency change process follows the same process as a standard Change review, with shorter timeframes.

1. Perform Update

Perform the system update in accordance with DMS Standard Operating Procedures.

DMS CONFIGURATION MANAGEMENT PLAN

2. Submit Change Request (CR)

Within 24 hours of performing the change, submit the CR using the form provided in **Appendix A – Change Request Form** submitted as an attachment to a work reporting system (Remedy) request assigned to the CR Configuration Manager. Document the reason for using the Emergency Change process.

3. Security Review

The ISSO/Configuration Manager will review the CR to determine what, if any impact the change has on the system and its associated C&A package. The ISSO/Configuration Manager may make a positive or negative recommendation. The reason for a negative recommendation must be documented in the CR. Regardless of the ISSO/Configuration Manager's recommendation, the CR, with the ISSO/Configuration Manager's comments is forwarded to the CCB.

4. CCB Review

The CCB will review the CR to determine what, if any impact the change to the system has on operations. The CCB may approve or deny the CR. The reason for denial must be documented in the CR. Moreover, the DMS Development Project Manager may override the recommendation of the ISSO/Configuration Manager. If the ISSO/Configuration Manager's decision is overridden, the reason must be documented in the CR. If the CCB denies the CR or if the DMS Development Project Manager does not override a negative ISSO/Configuration Manager recommendation, the changes to the production systems must be rolled back.

5. Update Documentation

Prepare any documentation updates. Documentation updates may include an entirely new version of the document or an updated section, table or diagram. In the case of an updated section, table or diagram, ensure that the update contains the proper section/figure/table number and labeling. Documentation updates are forwarded to the Documentation Configuration Manager.

5a. Rollback Changes

If the CCB denies the CR or if the DMS Development Project Manager does not override a negative ISSO/Configuration Manager recommendation, the changes to the production systems must be rolled back in accordance with DMS Standard Operating Procedures.

6. Update DMS Document Tracking Sheet

Documentation Configuration Manager will ensure that the documentation is correctly updated and tracked by updating and formatting the particular document and filling out DMS scripts and Inventory Database Document

DMS CONFIGURATION MANAGEMENT PLAN

Tracking Sheet. Note that if a decision was made to rollback the emergency changes, **Step 5** does not occur.

4 DMS DOCUMENTATION REPOSITORY

The DMS Development Project Manager Repository is located at <https://rdc.lctl.gov/trac/ejournals>. Additionally, for documents that require hard copies to be maintained, the Documentation Configuration Manager prints hard copies annually if changes have been made in the prior year and places them in the office of the DMS Development Project Manager at the Adams Building and the Alternate Computing Facility.

4.1 DMS Document Tracking

The Documentation Configuration Manager using the DMS Sheet tracks all documents that are covered by this CMP and are contained in the DMS Documentation Repository. Additionally, each document has a date, version number and Revision History. The Documentation Configuration Manager uses input from the CR to update these items.

o DMS Document Tracking Sheet

The DMS Document Tracking Sheet is located at <https://rdc.lctl.gov/trac/ejournals>.

The Documentation Configuration Manager registers document names and issues Document ID numbers. Document ID numbers are tracked exclusively in the DMS Document Tracking Sheet. The Documentation Configuration Manager will resolve document name collisions and enforce naming conventions.

Figure 3 – DMS Document Tracking Sheet (Sample)

Document ID	Document Path and Name	Version	Update Date	Status	Hard Copy Required

4.2 Submitting New Documents to the DMS Documentation Repository

Submitting new documents to DMS Documentation Repository is performed using a Change Request.

Soft copies of the documents are preferred. The Documentation Configuration Manager will not create soft copy documentation from hard copy documentation.

4.3 Removing Documents to the DMS Documentation Repository

Removing documents from the DMS Documentation Repository is performed using a Change Request.

DMS CONFIGURATION MANAGEMENT PLAN

Removal of documents entails destroying all copies of the documentation per the DMS SOPs and changing the Status to Removed in the DMS Tracking Sheet.

5 CHANGE CONTROL OF DMS CONFIGURATION PLAN

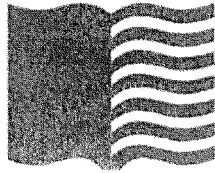
This CMP may be changed with the approval of the CCB. The CCB must review the plan annually, at a minimum, to determine its effectiveness and determine whether changes are necessary.

6 APPENDIX A – CHANGE REQUEST FORM

Change Request Number (Configuration Manager use only)		
Change Agent Information		
Change Agent Name		
Email Address		
Telephone Ext.		
Department		
Date/Time		
Change Information		
Emergency Change (Y/N)		
Documentation Only (Y/N)		
Systems Affected		
Documentation Affected		
Path and file name of attached test documentation		
Path and file name of attached document updates		
Describe and List the Change(s) to be performed (Include Interconnections)		
Describe why the Change is necessary (Change Agent Analysis) (Include potential Impact)		

521

Security Recommendation	Yes	No
CCB Recommendation	Approve	Deny



LIBRARY OF
CONGRESS

**IT SERVICE MANAGEMENT
INCIDENT & SERVICE REQUEST MANAGEMENT
WORKSPACE DEVELOPMENT FOR THE COPYRIGHT
OFFICE**

MEMORANDUM OF UNDERSTANDING (MOU)

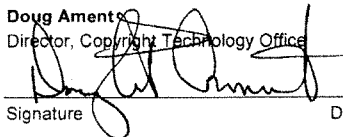
Copyright Technology Office & Information Technology Services

Document Version 1.0


February 12, 2013

Document Approval

Doug Ament
Director, Copyright Technology Office

 2/28/13
Signature Date

Al Banks
Director, Information Technology Services

 2/22/13
Signature Date

Supplemental Approvals

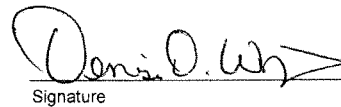
Steve Elky

Deputy Director, Information Technology Services

 2/22/2013
Signature Date

Denise Wofford

Deputy Director, Copyright Technology Office

 2/28/13
Signature Date

Bill Hoppis

Assistant Director for Operations, Information Technology Services

 2/12/2013
Signature Date

Michael Everingham

Acting Assistant Director for Research & Development, Information Technology Services

 2/12/2013
Signature Date

Revision History

Revision	Date	Revised By	Notes
0.1	4 Oct 2012	R. Watts	Initial version
1.0	12 Feb 2013	R. Watts	Version for Signature

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1 Purpose

This Memorandum of Understanding (MOU), between Information Technology Services (ITS) and the Copyright Technology Office (CTO), establishes the basis for a cooperative effort between the two organizations. CTO will develop an Incident & Service Request Manager Workspace for Copyright's internal and external clients using the ITS-hosted instance of BMC's FootPrints in the LOCTEST environment. ITS will manage and maintain the centralized hosted system (BMC FootPrints) within the LOCTEST environment, while CTO will configure separate, dedicated workspaces within that system to meet their requirements.

ITS is in the process of configuring and enhancing the ITS Incident & Service Request service management workspace, which will result in a future release in production that may be substantively different from its current implementation. As such, the configuration undertaken by the CTO to develop Incident & Service Request services for their internal and external users will need to be modified to comply with these changes. ITS will communicate these changes to CTO as they are designed and planned, but will rely on CTO to document their configurations so as to minimize the impacts of any required configuration re-work.

2 Supersedes

This MOU supersedes all other MOUs between the two organizations concerning the Copyright Incident & Service Request workspace using BMC FootPrints, including the previous version of this MOU.

3 Scope

The scope of the project is as follows: ITS will create one Copyright workspace that will support Incident & Service Request service management for both their internal and external users. ITS will create the Copyright workspace using a template of the existing ITS Help Desk Incident & Service Request workspace that exists in LOCTEST. CTO will configure the workspace in accordance with the requirements identified for their internal and external clients; CTO will document this configuration. ITS and CTO will collaborate on those use cases/scenarios where tickets must be escalated and routed between the two organizations. The deployment of a Copyright Incident & Service Request workspace in production is not included in the scope of this effort. Organizational responsibilities vary throughout the project; Section 4 provides details.

3.1 Included in Scope

- **Provision Incident & Service Request Workspace for CTO Internal and External Users** – ITS will provision an Incident & Service Request workspace to CTO so that they may configure and test for Copyright's internal and external users, based on the existing ITS Help Desk workspace template in LOCTEST
- **Configure and Implement Incident & Service Request Workspace for CTO Internal and External Users** – CTO will design and configure a CTO Incident & Service Request workspace for their internal and external users in LOCTEST
- **Identify potential escalation and transfer use cases/scenarios between CTO & ITS** – To standardize and facilitate the escalation and transfer of Incident & Service Request tickets

between CTO and ITS, the teams will work to identify use cases and scenarios that will inform design and configuration of both ITS Incident & Service Request workspace and the Copyright Incident & Service Request workspace

- **Monitor, maintain & manage BMC FootPrints in LOCTEST** – ITS Operations will monitor performance of the BMC FootPrints system in LOCTEST, apply patches to the system, and make regular backups of the system

3.2 Not Included in Scope

- **Provision Incident & Service Request Workspace for CTO Internal and External Users in Production**– Provisioning, configuration and deployment to production of the Copyright Incident & Service Request Workspace for internal and external users in Production will follow a future release of the ITS Incident & Service Request Workspace in Production; dates for this release will be identified in the future
- **Problem Management Workspace** – Problem management capabilities and a corresponding workspace may be introduced in later phases of the Copyright IT Service Management/FootPrints Implementation
- **Change Management Workspace** - Change management capabilities and a corresponding workspace may be introduced in later phases of the Copyright IT Service Management/FootPrints Implementation

4 Responsibilities

ITS has primary responsibility for monitoring, maintaining and managing the BMC FootPrints in LOCTEST; CTO has primary responsibility for configuring the Copyright Incident & Service Request workspace in accordance with requirements previously identified requirements. However, due to the integrated nature of the Incident & Service Request service management workspaces, availability of resources, and the future responsibilities of the organizations, it is desirable at this point to identify specific areas of organizational responsibility throughout the project lifecycle. This will prevent future confusion and disagreement when the project is well underway. Leadership for each area will be designated by the Project Manager.

Area	CTO	ITS	Notes
P = Perform, C = Consult, M=Minor to none, I = Inform			
During LOCTEST Development			
Develop Requirements	P	I	
Provision Incident & Service Request workspace for internal and external CTO users	I	P	Workspace will be created from the existing ITS Help Desk workspace that exists in the BMC FootPrints system in LOCTEST
Develop Configuration Incident & Service Request workspace for internal and external CTO users	P	I	
Document Configuration Incident & Service Request workspace for internal and external CTO users	P	I	This will be critical, as ITS is working to enhance the ITS Incident & Service Request workspace, which will result in a variance from the initial ITS Help Desk template from which the CTO workspaces will be created.
Monitor, maintain & manage BMC FootPrints system in LOCTEST	I	P	This will include backups, performance monitoring, and patching of the BMC FootPrints application and database servers. CTO will be informed regarding potential impacts to their work resulting from these activities.
Provide technical support and consultancy for the FootPrints tool	P	C	Responsibility for technical support and consultancy regarding the configuration of the tool will be with the SU. Substantial help resources are available within the tool itself. SU should designate a primary individual who may contact the vendor (via email or phone) with support questions (this is currently allowed, per the terms of the agreement with BMC—the terms of the agreement regarding support is subject to change without notice). A FootPrints user group will be formed at LC and can serve as a forum for discussing technical, configurations or strategic questions regarding the tool.
Analyze & define use cases/scenarios for escalation and transfer of Incident & Service Request tickets between CTO and ITS	P	P	

Area	CTO	ITS	Notes
Test Incident & Service Request workspace for internal and external CTO users	P	C	

Area	CTO	ITS	Notes
P = Perform, C = Consult, M=Minor to none, I = Inform			
Post-LOCTEST Development			
Identify Licensing Requirements	P	I	CTO will need to make the determination as to their FootPrints licensing needs for future Production deployment and provide this information to ITS. Licensing structure offers named licenses and concurrent licenses
Acquire Workspace Administrator Training	P	M	CTO will be responsible for requesting and funding of BMC FootPrints Workspace Administrator Training
Coordinate & Communicate Migration Methods	P	C	CTO will be responsible for documenting and communicating their migration & configuration methodology for moving to Production. ITS will collaborate closely with CTO to communicate any changes to the current production release that may impact CTO's configuration.
Develop Production MOU	C	P	As plans and dates are determined for a CTO Incident & Service Request workspace in Production, ITS will develop an MOU to formalize expectations between CTO and ITS

5 Additional Requirements

- All parties shall adhere to the provisions of this MOU/ISA.
- The team shall adhere to all Library of Congress Regulations (LCRs), and applicable policies and security directives.

6 Communication

Communication is key to maintaining the connection. Communications between ITS and CTO shall formally occur on Mondays, at the previously scheduled bi-weekly meeting between EUC and CTO. This meeting shall be organized by the ITS Service Management Program team. This meeting will have an agenda distributed two (2) business days prior to the meeting date, and shall have meeting minutes disseminated four (4) business days after conclusion.

There will be other communications, as required by either party, during the life of this development initiative.

7 Duration

This agreement shall remain in effect indefinitely, until superseded.

8 Amendments

This document will be visited during the duration of the effort as needed, to successfully realize the common objectives. The Director of ITS and the CTO Director must review and agree to any proposed changes. This document will be considered under change management.

9 Procedure for Resolving Disputes

Any disputes that cannot be resolved at the project level will escalate to the Director of ITS and the CTO Director for resolution.

CANDICE S. MILLER, MICHIGAN
CHAIRMAN

GREGG HARPER, MISSISSIPPI
RICH NUGENT, FLORIDA
RODNEY DAVIS, ILLINOIS
BARBARA COMSTOCK, VIRGINIA
MARK WALKER, NORTH CAROLINA

SEAN MORAN, STAFF DIRECTOR

Congress of the United States
House of Representatives
COMMITTEE ON HOUSE ADMINISTRATION
1309 Longworth House Office Building
Washington, D.C. 20515-6157
(202) 225-8281
<http://cha.house.gov>

ROBERT A. BRADY, PENNSYLVANIA
RANKING MINORITY MEMBER

ZOE LOFGREN, CALIFORNIA
JUAN VARGAS, CALIFORNIA

ONE HUNDRED FOURTEENTH
CONGRESS

JAMIE FLEET, MINORITY STAFF DIRECTOR

February 1, 2016

Joel C. Willemssen
Managing Director, Information Technology
U.S. Government Accountability Office
441 G. St. NW
Washington, D.C. 20548

Dear Mr. Willemssen,

Thank you for testifying during the Committee on House Administration's December 2, 2015 Hearing on Improving Customer Service for the Copyright Community. The Committee requests you respond to additional questions that will be made part of the hearing record. Please provide your responses to the following questions to the Legislative Clerk, C. Maggie Moore (Maggie.Moore@mail.house.gov) with the Committee by **March 7, 2016**.

1. In previous discussions, you have mentioned the Copyright Office must be specific in stating its unique needs to accomplish its goals to improve user experiences and modernize IT operations. Are there ways you would recommend to complete this, and to your knowledge, has the office made any progress in doing so?
2. Has the Copyright Office completed the necessary work to justify proposed large scale IT investments, such as efforts at recordation reform? If not, what work needs to be completed first?
3. One of the key recommendations for the Library was to produce an IT strategic plan. The Library has indicated they are still working to finalize that. One observation GAO has made in past discussions is that the Library must solidify its Library-wide, core IT services so that the service units could build off of it. What are some ways the Library could incorporate that thought into its IT strategic plan?
4. Some people have observed that hosting Library and Copyright IT systems in the Madison building is inherently risky because of the limitations and lack of redundancy in that building and associated data center. What are your conclusions on this issue and would you have any further guidance for the Library?
5. With your experience in auditing government IT systems, have you ever encountered a situation where the IT processes and systems within separate divisions of an organization are so inherently conflicting that the best course of action would be to completely split off one portion

of the original organization?

6. How would you assess the maturity of IT processes and systems within the Copyright Office, as compared to other government organizations that you have had experience with?

If you have any questions concerning this matter, please feel free to contact Brad Walvort on the Committee Staff at (202) 225-8281. Thank you again for your testimony. We look forward to hearing from you.

Sincerely,

A handwritten signature in black ink that reads "Candice S. Miller". The signature is written in a cursive, flowing style.

Candice S. Miller
Chairman

Post Hearing Questions for the Record
Submitted to Joel Willemssen
From Chairman Candice S. Miller

"Improving Customer Service for the Copyright Community"

December 2, 2015

1. In previous discussions, you have mentioned the Copyright Office must be specific in stating its unique needs to accomplish its goals to improve user experiences and modernize IT operations. Are there ways you would recommend to complete this, and to your knowledge, has the office made any progress in doing so?

As we reported in March 2015, the Copyright Office had been reacting to short-term needs and needed to develop concrete plans and strategies for how IT would support its mission and business needs in the longer term.¹ In addition, we reported that while the office had identified several proposed initiatives for making technology-related improvements and requested about \$7 million to fund them, it had not developed plans and proposals to justify those investments. Thus, we recommended that the office develop (1) more detailed plans for its proposed IT improvement initiatives and (2) an IT strategic plan with prioritized IT goals, measures, and timelines to guide its improvement efforts and that is aligned with the Library's ongoing strategic planning efforts. Taking these steps will help the office articulate the technology it needs to achieve its goals and better position it to effectively prioritize, manage, and monitor the progress of its IT improvement efforts.

Since our report was issued, the Copyright Office has made progress in implementing these recommended actions. In November 2015, Copyright officials provided us with plans that had been developed for three IT improvement initiatives proposed for funding in fiscal year 2017. These initiatives were for software and hardware upgrades, searchable historic copyright records, and a data management initiative. The plans for these three initiatives included key elements such as a business problem and proposed solution, expected benefits, alignment with the Library's strategic plan, and initial 3-year cost estimates and funding sources.

In addition, the office recently developed a provisional IT strategic plan, which describes a proposed IT operating model, future architecture, timelines to guide its improvement efforts, cost estimate, and risks.² However, it appears that the plan does not include prioritized IT goals and measures. Without prioritized IT goals, it is unclear how the plan supports the unique needs and mission of the Copyright Office. Additionally, it appears that the Copyright Office IT strategic plan may not be fully aligned with the Library's strategic planning efforts. For example, although

¹GAO, *Information Technology: Copyright Office Needs to Develop Plans that Address Technical and Organizational Challenges*, GAO-15-338 (Washington, D.C.: Mar. 31, 2015).

²U.S. Copyright Office, *Provisional Information Technology Modernization Plan and Cost Analysis* (Feb. 29, 2016). On March 1, 2016, the Copyright Office posted a notice of inquiry seeking public comments on its plan. The comment period will close on March 31, 2016. 81 Fed. Reg. 10,672.

the Library's December 2015 IT strategic plan calls for the Library to provide a sustainable IT infrastructure that can be scaled to meet the changing and expanding needs of the entire organization, the Copyright Office plans to acquire separate core IT services, to include many "commodity" IT³ services that the Library currently provides for the office. In finalizing its IT strategic plan, it will be important for the Copyright Office to ensure that its plan includes prioritized IT goals and measures and is clearly aligned with the Library's strategic planning efforts, to include the Library's December 2015 IT strategic plan.

2. Has the Copyright Office completed the necessary work to justify proposed large scale IT investments, such as efforts at recordation reform? If not, what work needs to be completed first?

While the Copyright Office has taken some actions to justify its IT investments, more work remains to be done to ensure that they support the office's long-term needs and goals. As noted in our report, the Copyright Office did not develop plans to justify and provide direction for its investments, as called for by leading practices, and it had not developed an IT strategic plan. The Copyright Office had proposed improvement projects that included, among other things, reengineering the recordation process from an IT, legal, and administrative perspective and ultimately developing an online filing system. In addition, the office had researched needed technical upgrades to its electronic registration process and identified four areas in greatest need of improvement, which also resulted in proposed recommendations for improvements in these areas. However, at the time of our review, little detailed planning had been carried out for these improvement efforts.

With regard to longer-term efforts, such as recordation reform, in planning for and justifying related IT investments, the office can follow and build on the approach it has taken for its three IT improvement initiatives proposed for fiscal year 2017. However, as mentioned previously, it appears that the Copyright Office's recently developed IT strategic plan does not identify prioritized IT goals and measures. Without such goals and measures, it is unclear how the office's proposed investments support its overall strategic goals and thus whether the initiatives are justified.

3. One of the key recommendations for the Library was to produce an IT strategic plan. The Library has indicated that they are still working to finalize that. One observation GAO has made in past discussions is that the Library must solidify its Library-wide, core IT services so that the service units could build off of it. What are some ways the Library could incorporate that thought into its IT strategic plan?

The Library issued an updated IT strategic plan on December 31, 2015, that covers fiscal year 2016 through 2020. In the plan, the Library identifies four IT strategic goals and a number of supporting objectives. The four strategic goals are: (1) provide strategic direction and

³According to OMB, commodity IT includes services such as IT infrastructure (data centers, networks, desktop computers and mobile devices); enterprise IT systems (e-mail, collaboration tools, identity and access management, security, and web infrastructure); and business systems (finance, human resources, and other administrative functions).

leadership, (2) improve IT investment management, (3) deliver business-driven capabilities, and (4) strengthen protection for systems and information.

Several of the objectives identified to support these goals relate to improving core IT services and capabilities. For example, in its plan the Library states that it intends to support a sustainable IT infrastructure that can be scaled to meet the changing and expanding needs of the entire Library; establish an IT investment management process that is driven by strategic planning and business priorities; integrate best practices for risk management, cost and schedule management, and service-level agreements into IT project management and operations; and continuously monitor and assess IT networks, systems, and services to ensure information security. Further, each objective has associated "next steps" that the Library intends to carry out.

As described, these efforts are in alignment with many of the recommendations we made in our report. However, the plan lacks performance measures that would permit senior leadership to assess whether the Library is succeeding. In the absence of such measures, the Library will be hindered in gauging its progress in strengthening core IT services and capabilities, and it will be difficult for oversight bodies, such as Congress, to hold it accountable for results.

4. Some people have observed that hosting Library and Copyright IT systems in the Madison building is inherently risky because of the limitations and lack of redundancy in that building and associated data center. What are your conclusions on this issue and would you have any further guidance for the Library?

According to the Library's fiscal year 2017 budget justification, its current computing facility in the James Madison Memorial Building does not have adequate redundancy for power or cooling. In particular, the Library explained in its budget justification that the building's backup generators, which are 35 years beyond their service life, cannot handle the power demand of the computing facility when power is shut down in an annual fire and safety inspection. Consequently, according to the Library, the Library needs to shut down its computing facility during this inspection. However, according to the Library's budget justification, shutting down the primary computing facility has resulted in hardware failures and a 9-day outage of the key Copyright Office systems. Although the Library's Deputy Chief Information Officer (CIO) clarified that the planned computing facility shutdown was not the direct cause of the extended outage,⁴ we agree that there are risks associated with this facility.

According to its fiscal year 2017 budget justification, the Library is requesting \$57.7 million over the next 3 years to move its primary computing facility in the Madison building to a different site. If received, the Library plans to use these funds to move to a facility that has redundant power and cooling components in order to avoid the need to shut down its data center during an extended power outage.

⁴In February 2016, the Deputy CIO explained that outage was the result of an incorrectly executed change to key infrastructure that was performed during the planned data center shutdown.

It is important to note, however, that the Library currently has an alternate computing facility and that it may be able to use this facility to maintain its IT operations during a planned power outage. As the Library assesses alternatives for its primary computing facility, it will be important for it to identify and consider a range of alternatives, to include the use of existing resources, and select a preferred alternative that best meets its mission needs in a cost-effective manner.

Additionally, it will be important for the Library to ensure that it has developed appropriate contingency plans to provide assurance that, when unexpected events occur, essential operations can continue without interruption or can be promptly resumed and that sensitive data are protected. As stated in our March 2015 report on the Library's management of information technology, the Library has developed a policy on contingency planning that requires system owners to ensure, for each IT system under their purview, the development and maintenance of a contingency plan.⁵ However, only three of the nine systems we reviewed had a complete contingency plan to ensure that their operations could be recovered quickly and efficiently if disrupted. Without such plans, the Library may have delays in recovering systems or may be unable to recover systems entirely in the event of a large disaster. We recommended that the Library develop contingency plans for all of its systems. The Library agreed with our recommendation. In February 2016 the Library's Deputy Chief Information Officer told us that the Library is reviewing its contingency planning efforts, starting with its most critical systems. She stated that the Library is aiming to establish contingency plans for its most critical systems by December 2016 and for its remaining systems no later than September 2018.

5. With your experience in auditing government IT systems, have you ever encountered a situation where the IT processes and systems within separate divisions of an organization are so inherently conflicting that the best course of action would be to completely split off one portion of the original organization?

Many federal agencies face challenges in managing their IT portfolio across a large, decentralized, or diverse organization. As both we and the Office of Management and Budget (OMB) have reported, duplicative, wasteful, and low-value investments have proliferated over the years, highlighting the need for agencies to avoid such investments whenever possible.

In the most recent update to our high-risk list we identified a new government-wide high-risk area: improving the management of IT acquisitions and operations.⁶ We noted that federal IT investments too often fail to be completed or are over budget and behind schedule while contributing little to mission-related outcomes. Contributing these concerns, executive-level governance and oversight across the government has often been ineffective, specifically from chief information officers (CIO). For example, we have reported that not all CIOs have the authority to review and approve the entire agency IT portfolio and that CIOs' authority was limited, and we have noted the need to strengthen CIOs' authority to provide needed direction and oversight.

⁵GAO, *Library of Congress: Strong Leadership Needed to Address Serious Information Technology Management Weaknesses*, GAO-15-315 (Washington, D.C.: Mar. 31, 2015).

⁶GAO, *High-Risk Series: An Update*, GAO-15-290 (Washington, D.C.: Feb. 11, 2015).

While the executive branch has undertaken numerous initiatives to improve the management of IT across the government, including OMB's TechStat,⁷ data center consolidation, and PortfolioStat initiatives, implementation of these efforts has been inconsistent. In particular, the PortfolioStat initiative is focused on rationalizing agencies' portfolio of IT investments to reduce or eliminate duplicative, overlapping, or low-value investments. In some cases, agencies were hindered in their ability to improve the management of their IT portfolio by limitations in the agency CIO's ability to review and approve the entire portfolio. Recognizing the need to strengthen the role of agency CIOs, in December 2014 Congress enacted federal IT acquisition reform legislation (commonly referred to as the Federal Information Technology Acquisition Reform Act or FITARA) that requires CIOs at designated executive branch agencies to, among other things, approve (1) IT budget requests of their respective agencies, (2) contracts for IT, and (3) the appointment of other agency component employees with the title of CIO.⁸

As we have emphasized previously, a decentralized agency organization incorporating diverse mission units can function successfully when the central IT office has responsibility for delivering commodity IT services, while requirements for mission-specific systems are driven by the business units. However, as we noted in our report on IT management at the Library, its CIO position did not have adequate responsibility for the agency's IT—in particular authority over commodity IT and oversight over mission-specific systems developed or acquired by other service units. In addition, the Library's central IT office had not ensured that its services were supporting the needs of the other service units by, for example, establishing service-level agreements for all these services that include agreed-upon performance targets and developing a plan for increasing customer satisfaction.

Since our report was issued, the Library appointed a new permanent CIO in September 2015; however, it remains to be seen whether he will be provided with clear responsibility and adequate authority for leading improvements in the management of the Library's IT. Additionally, the Library has yet to fully implement our recommendations aimed at developing service-level agreements that appropriately cover all services and include service-level targets, and to develop a plan for increasing customer satisfaction. Ensuring that the Library's CIO has the appropriate authority is key to making needed improvements in the face of long-standing challenges.

⁷TechStat sessions are face-to-face meetings to terminate or turn around IT investments that are failing or are not producing results. These meetings involve OMB and agency leadership and are intended to increase accountability and improve performance.

⁸Federal Information Technology Reform provisions of the Carl Levin and Howard P. 'Buck' McKeon National Defense Authorization Act for Fiscal Year 2015, Pub. L. No. 113-291 § 831(a) (Dec. 19, 2014), adding 40 U.S.C § 11319. Although this law is not applicable legislative branch agencies such as the Library, it demonstrates that Congress recognizes the importance of strong CIOs in federal agencies.

6. How would you assess the maturity of IT processes and systems within the Copyright Office, as compared to other government organizations that you have had experience with?

The Copyright Office is a small organization when compared to other agencies we have reviewed. In our March 2015 report, we noted that the office had a staff of about 380 employees. We also reported that the Library had about 3,746 employees (which included those within the Copyright Office). Responsibilities for managing IT at the Copyright Office are shared between Copyright Office staff and organizations at the broader Library level. For example, while the Copyright Office manages many of its systems (e.g., eCO, the copyright registration system), the Library's Office of Information Technology Services (ITS) manages and controls the infrastructure (e.g., networks, servers, and data center) on which the systems and applications reside. Such a division of responsibilities is common at other federal agencies. Many agency CIOs are responsible for delivering commodity IT to other units, while mission-specific systems are managed by the organizations that use them.

Our work, Copyright Office employees, and external users have all identified challenges with the office's current IT environment, such as in the performance and usability of systems, security, data integrity, and data availability and retention. For example, in March 2015 we reported that the eCO system—which is managed by the Copyright Office—had many issues related to performance and usability.

These challenges are not unique to the Copyright Office, and they have been experienced across the federal government. For example, we have reported on significant performance and usability issues affecting the Centers for Medicaid and Medicare Services' Healthcare.gov and related systems,⁹ and we have long identified security issues affecting the confidentiality, integrity, and availability of information at executive branch agencies.¹⁰ Further, as previously mentioned, we recently identified improving the management of IT acquisitions and operations as a government-wide high-risk area.¹¹

In both our report on the Copyright Office and our work on IT management at the Library as a whole, we identified a number of management weaknesses contributing to challenges across the organization. Addressing these weaknesses is key to enhancing the management processes and strengthening the systems that the Copyright Office relies on to carry out its

⁹See GAO, *Healthcare.gov: CMS Has Taken Steps to Address Problems, but Needs to Further Implement Systems Development Best Practices*, GAO-15-238 (Washington, D.C.: Mar. 4, 2015); *Healthcare.gov: Actions Needed to Address Weaknesses in Information Security and Privacy Controls*, GAO-14-730 (Washington, D.C.: Sept. 16, 2014); and *Healthcare.gov: Ineffective Planning and Oversight Practices Underscore the Need for Improved Contract Management*, GAO-14-694 (Washington, D.C.: July 30, 2014).

¹⁰Since 1997, we have designated federal information security as a government-wide high-risk area, and in 2003 expanded this area to include computerized systems supporting the nation's critical infrastructure. Most recently, in the February 2015 update to our high-risk list, we further expanded this area to include protecting the privacy of personally identifiable information (PII) collected, maintained, and shared by both federal and nonfederal entities. See, most recently, GAO, *High-Risk Series: An Update*, GAO-15-290 (Washington, D.C.: Feb. 11, 2015).

¹¹GAO-15-290.

mission. As noted above, since our report was issued, the office has made progress in further developing its plans for improving its IT environment. Continuing and building on these efforts will better position the Copyright Office to ensure that its IT investments meet its needs and those of its stakeholders and customers.

The CHAIRMAN. Typical, right? You go back to your office, all of a sudden you think, geez, I should have asked them this.

At any rate, we thank you all very much. We look forward to continuing to work with all of you for our mutual constituency, quite frankly. We all have the same constituent in this case, the American taxpayer.

Without objection, this hearing is now adjourned. Thank you.
[Whereupon, at 12:29 p.m., the Committee was adjourned.]

